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TITLE: **REINTEGRATION DIFFICULTY OF MILITARY COUPLES FOLLOWING DEPLOYMENT**

PRINCIPAL INVESTIGATOR: **Knobloch, Leanne K.**

CONTRACTING ORGANIZATION: **University of Illinois**
Urbana, IL 61820

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13. SUPPLEMENTARY NOTES

14. ABSTRACT

The reentry of service members back into family life after deployment can be extremely challenging for military couples. Understanding the factors that contribute to the reintegration difficulty of returning service members and at-home partners is essential for attracting, retaining, and safeguarding the nation's best military personnel. The ***goal of this project*** is to evaluate how people's mental health symptoms and romantic relationship characteristics predict their difficulty with reintegration.

The ***research design*** was an 8-wave longitudinal study in which 555 military couples completed an online survey once per month for eight consecutive months beginning at homecoming. Military couples were eligible to participate if (a) individuals were involved in a romantic relationship, and (b) both partners completed the Wave 1 survey during the first week after reunion following deployment. We will use the data to generate research-based guidelines for reintegration.

15. SUBJECT TERMS
reintegration difficulty; military couples; mental health; anxiety; depression; posttraumatic stress; relationship satisfaction; relational turbulence

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Reintegration Difficulty of Military Couples Following Deployment
Knobloch (PI) & Knobloch-Fedders (Co-I)

Table of Contents

1. Introduction

The reentry of service members back into family life after deployment can be extremely challenging for military couples. Understanding the factors that contribute to the reintegration difficulty of returning service members and at-home partners is essential for attracting, retaining, and safeguarding the nation's best military personnel. The ***goal of this project*** is to evaluate how people's mental health symptoms and romantic relationship characteristics predict their difficulty with reintegration. The ***research design*** was an 8-wave longitudinal study in which 555 military couples completed an online survey once per month for eight consecutive months beginning at homecoming. We will use the data to generate research-based guidelines for reintegration.

2. Keywords

reintegration difficulty; military couples; mental health; anxiety; depression; posttraumatic stress; relationship satisfaction; relational turbulence

3. Accomplishments

Major Goals of the Project

Year 1 Goals – Preparation for Data Collection

1. Seek IRB approval (completed 12 March 2014).
2. Solicit military family life contacts for advertising (began 15 April 2014, completed 27 July 2015).

Year 2 and Year 3 Goals – Recruitment and Data Collection

1. Identify returning military units (began 15 April 2014, completed 27 July 2015).
2. Advertise through online and newspaper channels (began 15 April 2014, completed 27 July 2015).
3. Enroll military couples (began 15 April 2014, completed 27 July 2015).
4. Manage data collection, retention, and e-card distribution (began 15 April 2014, completed 1 August 2015).

Accomplishments Under the Goals

The goal of this project is to evaluate how people's mental health symptoms and romantic relationship characteristics predict their difficulty with reintegration. The research design was an 8-wave longitudinal study in which 555 military couples completed an online survey once per month for eight consecutive months beginning at homecoming.

Year 1 Major Task 4: Identify returning military units (began 15 April 2014, completed 27 July 2015).

Year 1 Major Task 5: Solicit military family life contacts for advertising (began 15 April 2014, completed 27 July 2015).

Year 2 & 3 Major Task 1: Advertise through online and newspaper channels (began 15 April 2014, completed 27 July 2015).

Year 2 & 3 Major Task 2: Continue to identify returning military units (completed 27 July 2015).

Year 2 & 3 Major Task 3: Continue to solicit military family life contacts for advertising (completed 27 July 2015).

Year 2 & 3 Major Task 4: Manage enrollment, retention, and e-card distribution (began 15 April 2014, completed 1 August 2015).

Year 4 Major Task 1: Clean data in preparation for analyses (completed 15 June 2016).

Year 4 Major Task 2: Analyze data (began 15 June 2016, ongoing).

Year 4 Major Task 3: Draft manuscripts for submission to peer-reviewed academic journals (began 15 June 2016, ongoing).

Advertising

We recruited participants through military family life channels on a rolling basis. We sought to attract the attention of the at-home partner as the entry point for enrolling couples.

Our recruitment strategies included (a) posting to online forums, listservs, message boards, support groups, and Facebook pages frequented by military families; (b) circulating press releases to military installation newspapers; (c) sending announcements to military family life professionals, state family program directors, family readiness officers, directors of psychological health, family assistance coordinators, fleet and family readiness officers, chaplains, and military personnel located in all 50 states; (d) distributing information through national organizations such as the National Military Family Association and the Military Child Education Coalition; (e) placing paid advertisements in installation, base, and camp newspapers; (f) doing interviews with media organizations and military installation newspapers, and (g) writing guest essays for popular military family life blogs. Of the seven strategies, we found the first four strategies to be the most effective.

Enrollment

Military couples were eligible if (a) partners had separate email accounts, (b) one or both partners had recently returned home from deployment, and (c) both partners completed the Wave 1 questionnaire within the first seven days after reunion. Most participants reserved a spot in the study several months in advance of their projected reunion date, but others enrolled upon homecoming.

We implemented stringent procedures to guard against the risk of fraud. Those safeguards included:

Maintaining tight control over our advertising materials and circulating them only to military family life professionals, family readiness coordinators, chaplains, and military installation newspapers working with returning service members and their families.

Tracking our advertising procedures alongside the military couples who volunteered to ensure that boosts in interest were tied to specific outreach efforts.

Screening out any and all suspicious volunteers (e.g., asking them to report the military installation the service member was returning to). We took a very rigorous approach by declining spots in the study to any questionable volunteers.

Embedding a survey completion code at the end of each questionnaire and requiring individuals to email us their code after submitting their responses so we could verify their participation before sending their e-gift card.

Programming the survey software to track the amount of time individuals spent completing each questionnaire to screen out any fast-moving or slow-moving outliers.

Cleaning the data for all waves continuously to identify any dubious patterns. Our careful inspection of the data revealed notable problems for only five couples (less than 1% of the sample). We deleted those five couples from the dataset.

Data Collection Procedures

Our advertisements invited interested individuals to email a research account (military.couples.study@gmail.com) with (a) their name and email address, (b) their partner's name and email address, and (c) the anticipated date of the service member's homecoming within the limits of OPSEC. We emailed each partner individually with a description of the study and a request to respond if willing to participate.

After both partners replied to an email soliciting their consent, we emailed each person a link to the Wave 1 questionnaire along with a unique login and a temporary password. Participants logged into the Wave 1 questionnaire to select a permanent password for the duration of the study. We sent reminder emails on the fourth day and the sixth day after reunion, and on the seventh day, the Wave 1 logins expired. We eliminated 32 military couples because one or both partners failed to complete the Wave 1 questionnaire by the one-week deadline.

Data collection continued with the remaining 555 military couples for seven consecutive months. On the monthly anniversary of their reunion date, we emailed participants a link to the next questionnaire, which remained open for seven days, along with reminder emails on the fourth day and the sixth day. Individuals received a $15 e-gift card from a national retailer

for each wave of the study they completed, plus a bonus $50 e-gift card if they completed all waves.

Sample Characteristics

Our final sample included 555 couples ($N = 1,110$ individuals) who completed all procedures. Individuals responded to the Wave 1 questionnaire an average of 4.27 days after reunion ($SD = 1.81$ days). The rate of participation remained high across waves:

Response rate for Wave 1 = 100%	_Response rate for Wave 5_ = 89%
Response rate for Wave 2 = 91%	_Response rate for Wave 6_ = 88%
Response rate for Wave 3 = 92%	_Response rate for Wave 7_ = 86%
Response rate for Wave 4 = 88%	_Response rate for Wave 8_ = 88%

Our final sample contained 554 men and 556 women ($n = 554$ cross-sex couples, 1 same-sex couple). Individuals were Caucasian (81%), Latino/a (10%), African American (4%), Asian or Pacific Islander (3%), or American Indian or Alaskan Native (2%). Participants ranged from 19 to 59 years of age ($M = 31.18$ years, $SD = 6.39$ years) and hailed from 44 U.S. states, the District of Columbia, and Guam.

Participants described their education as some high school (1%), high school graduate (13%), some college (31%), associate's degree (15%), bachelor's degree (28%), and advanced graduate degree (12%). Most individuals reported an annual household income of between $21,000 to $40,000 (23%), $41,000 to $60,000 (32%), or $61,000 to $80,000 (18%).

Most military couples were married (95%), and of those who were married, most were involved in their first marriage (81%) versus a remarriage (19%). The majority of military couples lived in the same residence upon reunion (96%) and had children (71%). The length of their romantic relationship averaged 8.43 years ($SD = 5.40$ years).

Most returning service members were men ($n = 547$) and at-home partners were women ($n = 548$). The majority of at-home partners were civilians (88%), but others were current (5%) or former (7%) members of the military.

Returning service members were affiliated with the U.S. Army (40%), Navy, (21%), Marines (18%), Air Force (10%), Army National Guard (8%), Air National Guard (2%), and Coast Guard (1%). The length of their deployment averaged 7.71 months ($SD = 2.31$ months), and their primary mission during deployment was combat (60%), peacekeeping (17%), training (15%), relief (3%), or undisclosed (5%).

Approximately 30% of returning service members had deployed for the first time; others had completed one (24%), two (17%), three (13%), four (8%), or five or more (8%) previous deployments.

Opportunities for Training and Professional Development

Undergraduate Research Assistant Training

Under the direction of Dr. Knobloch, nine undergraduate students earned independent study credit during the 2015-16 academic year by attending weekly team meetings, learning about the research process, and completing basic research tasks. The undergraduate research assistants helped to (a) circulate recruitment advertisements to state family program directors, family readiness officers, directors of psychological health, chaplains, and other professionals who support military families; (b) post to online forums, message boards, Facebook pages, and social networking sites geared toward military families; (c) identify military units returning from deployment; (d) purchase e-gift cards for distribution; (e) upload monthly e-mails; (f) track participation and attrition across couples and across waves; and (g) clean the data in preparation for analyses.

Under the direction of Dr. Knobloch-Fedders, four undergraduate students served as unpaid research assistants during the 2015-16 academic year by attending weekly team meetings, learning about the research process, and completing basic research tasks. The undergraduate research assistants helped to (a) clean the open-ended survey data in preparation for analysis; (b) develop a codebook to measure the relevant categories; and (c) code the open-ended data.

Graduate Research Assistant Training

Under Dr. Knobloch's supervision, four Ph.D. students were employed during the 2015-16 academic year to gain research experience and complete advanced research tasks. The graduate research assistants helped to (a) conduct literature searches for relevant publications; (b) circulate recruitment materials; (c) complete daily checks of the survey responses for reports of suicide as required by the University of Illinois Institutional Review Board; (d) clean the incoming data; (e) provide feedback on the quarterly report materials, annual report materials, and annual in-progress review presentation; (f) circulate press releases about the study; and (g) assist in mentoring the undergraduate research assistants.

Under the direction of Dr. Knobloch-Fedders, six M.A. students served as unpaid research assistants during the 2015-16 academic year by attending weekly team meetings, learning about the research process, and completing basic research tasks. The graduate research assistants helped to (a) clean the open-ended survey data in preparation for analysis; (b) develop a codebook to measure the relevant categories; and (c) code the open-ended data.

Dissemination of Results

Media Coverage of our Research

News story in the *Killeen Daily Herald* (14 February 2016)
http://kdhnews.com/military/studying-military-families-joy-of-reunion-challenged-by-reality-of/article_fe0a2de0-d2d4-11e5-9bd4-c3560297c1c6.html

News story in the *Killeen Daily Herald* (15 February 2016)
http://kdhnews.com/military/fort-hood-deployments-not-going-away-anytime-soon/article_c6018cba-d390-11e5-8b3e-b78ab8283319.html

News story in the *Army Times* (17 February 2016)
http://www.armytimes.com/story/military/family/2016/02/17/texas-military-families-deal-deployments-ways-cope/80523590/

Guest blog post for Spousebuzz.com (16 March 2016)
http://www.spousebuzz.com/blog/2016/03/9-homecoming-tips-from-a-communications-expert.html

News story in the *Killeen Daily Herald* (10 April 2016)
http://kdhnews.com/news/local/kids-deployments-when-a-parent-deploys-children-face-tough-challenges/article_1985aeec-fed5-11e5-8d0d-239185058a36.html

Plans for the Next Reporting Period

Year 4 Major Task 2: Analyze data (began 15 June 2016, ongoing).

Year 4 Major Task 3: Draft manuscripts for submission to peer-reviewed academic journals (began 15 June 2016, ongoing).

4. Impact

Impact on Principal Disciplines

Several researchers funded by the agency have contacted us for advice on advertising and recruitment given our success in attracting participants. We have been happy to share suggestions and best practices.

Impact on Other Disciplines

Nothing to report.

Impact on Technology Transfer

Nothing to report.

Impact on Society Beyond Science and Technology

Nothing to report.

5. Changes/Problems

Changes in Approach and Reasons for Change

We submitted a request to modify our original statement of work on 3 November 2015; the request was approved on 11 February 2016. Our revised statement of work evaluates whether our hypotheses about mental health symptoms, romantic relationship characteristics, and reintegration difficulty vary by first time versus multiple deployment experience. The modified statement of work doubles the target sample size from 250 military couples (4,000 observations) to 500 military couples (8,000 observations).

Actual or Anticipated Problems or Delays and Actions or Plans to Resolve Them

Nothing to report.

Changes that Had a Significant Impact on Expenditures

Nothing to report.

Significant Changes in Use or Care of Human Subjects

Nothing to report.

6. Products

Publications, Conference Papers, and Presentations

Knobloch, L. K., & Knobloch-Fedders, L. M. (2016, March). *Reintegration difficulty of military couples after deployment.* Report presented to the Family Research In-Progress Review Panel, Ft. Detrick, MD.

Websites

http://publish.illinois.edu/military-couples-study/ - Study website designed to attract, recruit, and retain participants. Central clearinghouse for press coverage of research and scholarly publications.

https://www.facebook.com/military.couples.study - Facebook page for the study.

https://twitter.com/search?q=study of military couples after deployment/ - Twitter account for the study.

https://www.linkedin.com/pub/leanne-knobloch/a4/323/ab9 - LinkedIn account for the study.

Technologies or Techniques

Nothing to report.

Inventions, Patent Applications, and/or Licenses

Nothing to report.

Other Products

Nothing to report.

Addendum: **Publications, Conference Papers, and Presentations from Pilot Data Funded by the University of Illinois**

Journal Articles Reporting Pilot Data (Funded by the University of Illinois)

Knobloch, L. K., Sharabi, L. L., Delaney, A. L., & Suranne, S. M. (2016). The role of relational uncertainty in topic avoidance among couples with depression. *Communication Monographs, 83,* 25-48.

Knobloch, L. K., Basinger, E. D., Wehrman, E. C., Ebata, A. T., & McGlaughlin, P. C. (in press). Communication of military couples during deployment and reunion: Changes, challenges, opportunities, and advice. *Journal of Family Communication*.

Knobloch, L. K., McAninch, K. G., Abendschein, B., Ebata, A. T., & McGlaughlin, P. C. (in press). Relational turbulence among military couples after reunion following deployment. *Personal Relationships*.

Book Chapters Reporting Pilot Data (Funded by the University of Illinois)

Knobloch, L. K., Theiss, J. A., & Wehrman, E. C. (2015). Communication of military couples during deployment: Topic avoidance and relational uncertainty. In E. Sahlstein & L. M. Webb (Eds.), *A communication perspective on the military: Interactions, messages, and discourses* (pp. 39-58). New York, NY: Peter Lang.

Invited Presentations Reporting Pilot Data (Funded by the University of Illinois)

Knobloch, L. K. (2015, August). *Reintegration difficulty of military couples after deployment*. Invited address, Center for Wounded Veterans in Higher Education Research Symposium, University of Illinois.

Knobloch, L. K. (2015, August). *Communicating effectively during transitions: Managing turbulence and dilemmas.* Webinar presentation, eXtension Military Families Learning Network.

Knobloch, L. K. (2015, September). *Research and primary data collection*. Working group member, Battle Plan for Military Families Symposium, Military Family Research Institute at Purdue University.

Knobloch, L. K. (2016, January). *Strengthening and enhancing your social support network*. Subject matter expert for online course, U.S. Office of the Secretary of Defense for the Yellow Ribbon Reintegration Program and the Clearinghouse for Military Family Readiness at Pennsylvania State University.

Knobloch, L. K. (2016, July). *Welcome home: Research and tips on reintegration after deployment*. Distinguished lecture, Military Child Education Coalition National Training Seminar, Washington, DC.

Addendum: Honors and Awards

A journal article co-authored by Dr. Knobloch was nominated for the inaugural 2015 award for research on military and veteran families sponsored by the Military Family Research Institute at Purdue University:

Theiss, J. A., & Knobloch, L. K. (2014). Relational turbulence and the post-deployment transition: Self, partner, and relationship focused turbulence. *Communication Research, 41,* 27-51.

In September 2015, Dr. Knobloch was named a University Scholar by the Vice President for Academic Affairs of the University of Illinois. The award is the highest honor bestowed by the University of Illinois to recognize outstanding members of the faculty and celebrate excellence in research, teaching, and outreach. Her nomination emphasized her innovative research on military families across the deployment cycle.

In March 2016, Dr. Knobloch and Dr. Knobloch-Fedders participated in the Operation Educate the Educators summit at the White House in Washington, DC. The summit was co-sponsored by the Joining Forces Initiative, the Military Child Education Coalition, and the American Association of Colleges for Teacher Education.

7. Participants and Other Collaborating Organizations

Individuals who Have Worked on the Project

Name	Role	Person Month	Contribution
Leanne Knobloch, Ph.D.	PI	2.8	PI
Lynne Knobloch-Fedders, Ph.D.	Co-I	2.4	Co-I
Jeremy Yorgason, Ph.D.	Statistical Consultant	0.10	Data Analysis
Bryan Abendschein, M. A.	Graduate RA at Illinois	1.22	Data Management & Outreach
Erin Basinger, M.A.	Graduate RA at Illinois	1.22	Team Supervision
James Kale Monk, M.A.	Graduate RA at Illinois	1.22	Data Management & Outreach
Erin Wehrman, M.A.	Graduate RA at Illinois	1.22	Data Management & Outreach
Daniel Byrne	Undergraduate RA at Illinois (*unpaid*)	1.13	Data Management & Outreach
Danielle Callahan	Undergraduate RA at Illinois (*unpaid*)	0.84	Data Cleaning & Coding
Brittany Gibson	Undergraduate RA at Illinois (*unpaid*)	1.13	Data Cleaning & Coding
Chong (Jessica) Lee	Undergraduate RA at Illinois (*unpaid*)	0.84	Data Cleaning & Coding
Kaitlyn Nead	Undergraduate RA at Illinois (*unpaid*)	1.13	Data Cleaning & Coding
Jordan Niezelski	Undergraduate RA at Illinois (*unpaid*)	0.84	Data Cleaning & Coding
Laura Saldivar	Undergraduate RA at Illinois (*unpaid*)	0.84	Data Cleaning & Coding
Claudia Szczepaniak	Undergraduate RA at Illinois (*unpaid*)	1.13	Data Cleaning & Coding
Vanida Vesuntia	Undergraduate RA at Illinois (*unpaid*)	0.84	Data Cleaning & Coding
Hannah Fiore	Undergraduate RA at Family Institute (*unpaid*)	1.13	Data Cleaning & Coding
Samantha Scott	Undergraduate RA at Family Institute (*unpaid*)	1.13	Data Cleaning & Coding
Jacqueline Wong	Undergraduate RA at Family Institute (*unpaid*)	0.84	Coding

Daphne Liu	Undergraduate RA at Family Institute (*unpaid*)	0.84	Coding
Alexis Meade	Graduate RA at Family Institute (*unpaid*)	0.84	Coding
Alexandra Maynard	Graduate RA at Family Institute (*unpaid*)	0.84	Coding
Karl Briedrick	Graduate RA at Family Institute (*unpaid*)	0.84	Coding
Kathleen Pell-King	Graduate RA at Family Institute (*unpaid*)	0.84	Coding
Kaitlyn Bellingar	Graduate RA at Family Institute (*unpaid*)	0.84	Coding
Chrishane Cunningham	Graduate RA at Family Institute (*unpaid*)	0.84	Coding

Change in Active Other Support of Key Personnel

Our original statistical consultant, Dr. Benjamin Karney from the University of California-Los Angeles, reported to us that he had less active involvement conducting the dyadic growth curve techniques required for our project than we realized.

We received approval to transfer Dr. Karney's statistical consulting tasks to Dr. Jeremy Yorgason from Brigham Young University on 1 June 2016. Dr. Yorgason began consulting on the project shortly thereafter (see table entry).

Partner Organizations

University of Illinois – Urbana, IL

Contributions: (1) financial support (including conference travel), (2) in-kind support (including office supplies, computers, software, printers, Internet access, telephone, and fax), (3) facilities (including office space and meeting rooms), and (4) personnel (including administrative support staff, human resource management, and undergraduate and graduate research assistants).

The Family Institute at Northwestern University – Evanston, IL

Contributions: (1) in-kind support (including office supplies, computers, software, printers, Internet access, telephone, and fax), (2) facilities (including office space and meeting rooms), and (3) personnel (including administrative support staff, human resource management, and undergraduate and graduate research assistants).

"Reintegration Difficulty of Military Couples Following Deployment"
USAMRMC Log No. 12154004

**PI:** Leanne K. Knobloch   **Org:** University of Illinois   **Award Amount:** $834,061

Study Aims
• Test the mechanisms of relational turbulence as *independent predictors* of the reintegration difficulty of returning service members and at-home partners.
• Test relational uncertainty and interference from partners as *mediating pathways* linking mental health symptoms to the reintegration difficulty of returning service members and at-home partners.
• Test relational uncertainty and interference from partners as *moderating debilitative factors* of the associations that mental health symptoms share with the reintegration difficulty of returning service members and at-home partners.

Approach
This project evaluates how people's mental health symptoms and romantic relationship characteristics predict their difficulty with reintegration. Online survey data were collected from 555 military couples once per month for 8 consecutive months upon reunion.
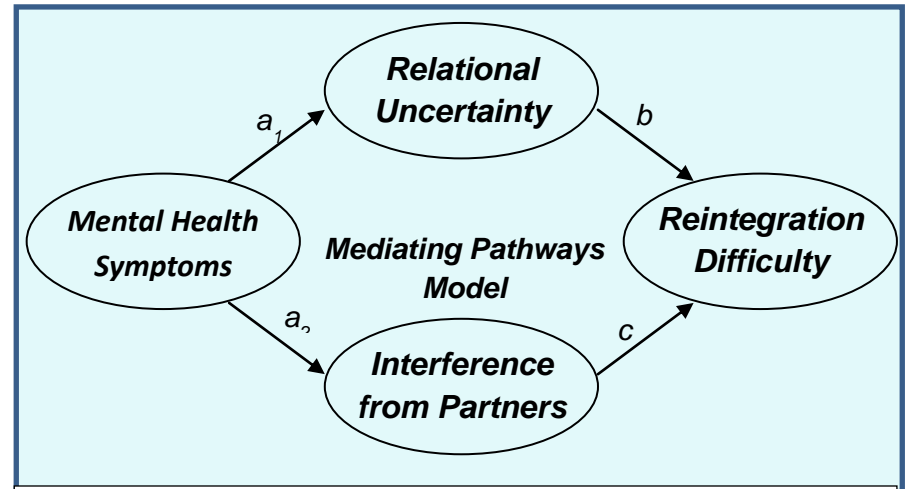
The goal of this project is to examine how mental health symptoms, relational uncertainty, and interference from partners predict reintegration difficulty following deployment. The mediating pathways model is one of three models to be tested.

Timeline and Cost

Activities Year	1	2	3	4
Preparation for Data Collection	▮			
Recruitment & Data Collection		▮▮▮		
Data Analysis & Dissemination				▮
Estimated Budget ($K)	210,405	253,895	224,354	145,407

Updated: 07/28/2016

Study Milestones
Year 1 Goals – Preparation for Data Collection
  ☑ Seek IRB approval
☑ Solicit military family life contacts for advertising
Year 2 and Year 3 Goals – Recruitment and Data Collection
☑ Identify returning military units
☑ Advertise through online and newspaper channels
☑ Enroll military couples
☑ Manage data collection, retention, & e-card distribution
Year 4 Goals – Data Analysis and Dissemination
  ☐ Analyze data
  ☐ Disseminate results
  ☐ Identify empirically-based guidelines for clinical application
Comments/Challenges/Issues/Concerns
(none yet)
Budget Expenditure to Date
Projected Expenditure: $464,300
Estimated Actual Expenditure: $553,000

9. Appendices

1. Knobloch, L. K., Theiss, J. A., & Wehrman, E. C. (2015). Communication of military couples during deployment: Topic avoidance and relational uncertainty. In E. Sahlstein & L. M. Webb (Eds.), *A communication perspective on the military: Interactions, messages, and discourses* (pp. 39-58). New York, NY: Peter Lang.

2. Knobloch, L. K., Sharabi, L. L., Delaney, A. L., & Suranne, S. M. (2016). The role of relational uncertainty in topic avoidance among couples with depression. *Communication Monographs, 83,* 25-48.

3. Knobloch, L. K., Basinger, E. D., Wehrman, E. C., Ebata, A. T., & McGlaughlin, P. C. (in press). Communication of military couples during deployment and reunion: Changes, challenges, opportunities, and advice. *Journal of Family Communication*.

4. Knobloch, L. K., McAninch, K. G., Abendschein, B., Ebata, A. T., & McGlaughlin, P. C. (in press). Relational turbulence among military couples after reunion following deployment. *Personal Relationships*.

3. *Communication of Military Couples During Deployment: Topic Avoidance and Relational Uncertainty*[1]

Leanne K. Knobloch
Jennifer A. Theiss
Erin C. Wehrman

Communication bridging the warzone and the home front has important consequences for the well-being of military couples separated by a tour of duty (Carter et al., 2011; Maguire, Heinemann-LaFave, & Sahlstein, 2013; Sahlstein, Maguire, & Timmerman, 2009). When service members leave for deployment, they expect to communicate often with their loved ones at home, but they can be disappointed if problems with scarce or unreliable technology hamper their ability to stay connected (Schumm, Bell, Ender, & Rice, 2004). The substance of communication also matters beyond the frequency of exchanges (e.g., Ferrier-Auerbach, Erbes, Polusny, Rath, & Sponheim, 2010). Communication can help military couples cope with deployment by preserving their connection, assuaging their worries about each other's well-being, and boosting their morale (Greene, Buckman, Dandeker, & Greenberg, 2010; Pincus, House, Christenson, & Adler, 2001), but communication also can aggravate an already-challenging situation by heightening anxiety, distracting the deployed service member from the mission, provoking conflict, and exacerbating loneliness (Ferrier-Auerbach et al., 2010; Greene et al., 2010; Pincus et al., 2001). For these reasons, communication during deployment can be a double-edged sword for deployed service members and at-home partners.

Although recent findings demonstrate the significance of communication between military personnel and at-home partners during deployment, scholars have only scratched the surface studying it. Indeed, a next generation of research should move beyond investigating the amount or chan-

nel of contact between military couples during deployment to consider the complexities of their communication (e.g., Carter et al., 2011; Knobloch & Wilson, 2015). In-depth work examining the substance of communication during a tour of duty is critical for building theory and generating evidence-based guidelines for practice. Our chapter represents a step forward by examining challenging aspects of communication for military couples during deployment. We draw on the emotional cycle of deployment model (Pincus et al., 2001) to identify *regulating privacy* and *managing relational uncertainty* as fundamental communication processes undergirding interaction between military couples during deployment. We report open-ended data from two studies to identify avoided topics (*RQ1*) and issues of relational uncertainty (*RQ2*) that are salient when military couples are separated by a tour of duty.

Communication During Deployment

The *emotional cycle of deployment model* describes the experiences of military families across the trajectory of deployment. To develop the model, Pincus et al. (2001) drew on their professional practice as military psychiatrists, their personal experiences with deployment, and their synthesis of the scholarly literature. The model conceptualizes deployment as a five-phase cycle with unique challenges arising during each stage. The model's key premise is that military families will struggle with the demands of deployment unless they can successfully manage the stressors at each point in the trajectory. We begin with an overview of the model's five stages, and then we consider the implications of the model for understanding the core communication processes relevant to military couples separated by a tour of duty.

The *pre-deployment stage* is marked by a flurry of activity as service members and their loved ones prepare for the impending separation. Military families can experience a flood of emotions such as shock, denial, anger, and anticipation of loss. The *deployment stage* refers to the first month after departure; military families can feel disoriented during this period as they grapple with feelings of grief and anxiety about the separation. The *sustainment stage* stretches from one month after departure to one month before the service member's expected return. Military families face the tasks of building new routines while dealing with emotions such as loneliness, worry, and even pride over new-found autonomy. During the *redeployment stage*, the one-month window before homecoming, military families can feel torn between excitement and nervousness about the upcoming reunion. Finally, the *post-deployment stage* begins on the day of reunion and lasts up to six months

afterwards. Military families can experience a honeymoon period followed by upheaval as they renegotiate everyday roles and routines.

Regulating Privacy

Although the emotional cycle of deployment model is not a theory of communication per se, it hints at important communication processes for military personnel and at-home partners to navigate while apart (Pincus et al., 2001, pp. 17–20). For instance, the model implies military couples face the challenge of regulating privacy during the three separation stages of deployment, sustainment, and re-deployment. During the deployment stage, the model suggests individuals might withhold details about their struggles to avoid making their partner feel worried, upset, or lonely. Similarly, during the sustainment stage, the model proposes deployed service members and at-home partners might refrain from expressing negative feelings because their mate cannot provide direct support. During the re-deployment stage, the model posits military couples might conceal their apprehension about the impending homecoming to avoid dampening the excitement of reunion. Above all, the model argues openly sharing information can help deployed service members and at-home partners bridge the physical distance between them, but too much openness about conflict-riddled topics can leave military couples feeling isolated and alone. As Pincus et al. (2001) note:

> Over long distances and without face-to-face contact, communications between husband and wife are much more vulnerable to distortion or misperception. Given this limitation, discussing "hot topics" in a marriage can be problematic and are probably best left on hold until after the deployment when they can be resolved more fully. (p. 18)

Empirical evidence also identifies negotiating privacy as a primary task facing military couples during a tour of duty. For example, the strategies military wives use to maintain their marriage during deployment include concealment behaviors such as avoiding sensitive issues and creating distance between partners when necessary (Maguire et al., 2013; Merolla, 2010). *Topic avoidance* occurs when people strategically evade discussing an issue with their partner (Afifi & Guerrero, 2000; Dailey & Polomares, 2004). Topic avoidance serves important functions during deployment by helping military couples circumvent face threats, preempt conflict, and stay focused on their responsibilities at home or in theatre (Greene et al., 2010; Joseph & Afifi, 2010; see also Frisby, Byrnes, Mansson, Booth-Butterfield, & Birmingham, 2011; Knobloch, Ebata, McGlaughlin, & Theiss, 2013). Indeed, military wives report withholding sensitive information from their husband when they believe he is in danger

in the warzone (Joseph & Afifi, 2010). Unfortunately, the literature lacks a comprehensive description of the topics military couples avoid discussing during deployment. Such a description would be useful for fueling theoretical advances about topic avoidance and informing practical advice for helping military couples communicate effectively when separated by a tour of duty. Accordingly, we advance a first research question.

RQ1:   What topics do military couples avoid talking about during deployment?

Managing Relational Uncertainty

The emotional cycle of deployment model suggests managing uncertainty about relationships is a second communication process military couples contend with during a tour of duty (Pincus et al., 2001). During the deployment stage, for example, the model argues military couples often worry about each other's safety and wonder who is supporting their partner. During the sustainment stage, the model notes rumors about infidelity, injuries, and difficulty coping at home or overseas can spread quickly through military units and family support groups, which can hamper the well-being of both deployed service members and at-home partners. During the re-deployment stage, the model posits military couples can experience substantial apprehension about whether the upcoming reunion will meet their expectations. Hence, the model emphasizes that the deployment cycle can be riddled with questions for both service members and at-home partners.

Interview data also highlight *relational uncertainty*, defined as people's questions about involvement in a relationship (Knobloch, 2010; Knobloch & Solomon, 2002), as fundamental to communication between military couples during deployment. For example, Army National Guard spouses experience relationship-focused uncertainty from trying to keep the deployed service member psychologically present despite his or her physical absence (Wiens & Boss, 2006). Deployed reservists and at-home partners experience ambiguity over worrying about each other's safety, attempting to redistribute roles, and wondering whether reunion will go smoothly (Faber, Willerton, Clymer, MacDermid, & Weiss, 2008). Indeed, military spouses report that uncertainty about the service member's well-being and questions about the future are major stressors of deployment (Lapp et al., 2010; Wheeler & Torres Stone, 2010).

Although these investigations imply relational uncertainty is central to the exchanges between military couples during deployment, no work has systematically catalogued the specific questions military couples encounter.

This oversight is unfortunate because documenting the issues of relational uncertainty during deployment is a prerequisite to extending theory. Moreover, military clinicians, practitioners, and policy makers could find such a list valuable for preparing military couples for the challenges of deployment. We submit a second research question to facilitate a formal investigation of this topic.

RQ2:   What issues of relational uncertainty do military couples experience during deployment?

Study 1

Method

We investigated *RQ1* by collecting online survey data from U.S. military personnel who recently completed a deployment (for other results from this sample, see Knobloch & Theiss, 2011a; Theiss & Knobloch, 2013). We advertised the study by (a) distributing announcements to military family life professionals throughout the country, and (b) posting information to online forums and message boards frequented by military families. Service members were eligible to participate if they (a) were currently involved in a romantic relationship, and (b) had returned home from deployment within the past six months. Participants received a $15 gift card from a national retailer.

Our recruitment procedures garnered a sample of 237 individuals (199 men, 38 women) from 27 U.S. states who completed the relevant measures. Participants were Caucasian (78%), African American (8%), Hispanic (5%), Asian (3%), Native American (3%), and other (3%). They ranged in age from 18 to 57 years old ($M = 33.30$ years, $SD = 8.80$ years). Most individuals were married (82%), lived in the same residence with their romantic partner (89%), and were parents (59%). The length of their romantic relationship averaged 8.51 years ($SD = 6.74$ years).

Participants were members of the U.S. National Guard (63%), the Army (29%), the Air Force (3%), the Navy (3%), and the Marines (2%). They reported their military status as active duty (53%), reserves (38%), inactive ready reserves (2%), discharged (2%), retired (1%), or other (4%). They had been home approximately 3.41 months (*range* = less than one week to six months, $SD = 1.67$ months) from a deployment lasting an average of 10.99 months (*range* = 1 month to 24 months, $SD = 2.97$ months). More than half of participants (58%) had completed multiple deployments, and 6% were members of a dual-deployed couple.

Upon visiting the study's website, participants read a description of the project and provided electronic consent. Next, they reported demographic information and completed an open-ended item interspersed within a larger questionnaire. The open-ended item read "It's normal for people to keep some information private from their partner. What topics, if any, did you avoid talking about with your partner during deployment?"

Data Analysis

We employed content analytic procedures recommended by Neuendorf (2002) to analyze the data. To begin, the first author and a research assistant blind to *RQ1* gained familiarity with people's responses by making several passes through the data. Next, they engaged in line-by-line open coding using constant comparative techniques to identify the primary categories in the data (Strauss & Corbin, 1998). Then, they unitized the responses containing multiple ideas into thematic units. A *thematic unit* is a unit of analysis conveying a single idea and ranges in length from one clause to several sentences; it is well-suited for dividing free response data (Krippendorff, 2004).

A final step was to evaluate whether independent observers who were blind to the research question could apply the coding scheme to the data. Accordingly, the first author trained three coders to categorize the thematic units into mutually exclusive and exhaustive categories (Krippendorff's α = .89). Disagreements between judges were resolved by majority rule.

Results

The majority of participants (85%, *n* = 201) reported at least one avoided topic (*N* = 270 substantive thematic units), and 36 participants (15%) commented that they did not avoid talking with their romantic partner about any topics during deployment. In the following paragraphs, we offer a brief definition of each category along with illustrative quotations. Ellipses in brackets denote places where we abridged people's comments for the sake of parsimony. Table 3.1 contains additional examples of the most commonly-mentioned categories.

Restricted military information. A first category encompassed confidential workplace details and specifics about the mission (*n* = 94 thematic units, 35% of the substantive thematic units). Examples included: (a) "Traveling/missions, information that I could not disclose over public channels." (deployed National Guard husband, 32 years old), (b) "Military business that would have no bearing on my spouse." (deployed Army husband, 54 years old), and (c) "Things about the mission that would be considered secret or

that would violate OPSEC [operations security].” (deployed Air Force husband, 36 years old).

Potential danger. A second category indexed threats to the deployed service member’s safety and the possibility of being wounded or killed (n = 88 thematic units, 33%). Examples included: (a) “I know I tried to avoid telling my wife about my combat experiences, though that didn’t keep her from asking about if I had seen any actions.” (deployed National Guard husband, 23 years old), (b) “I never talked about anything that my wife could perceive as dangerous or make her worry more about me.” (deployed National Guard husband, 27 years old), and (c) “I may have avoided some details about detainees so that he didn’t worry about me.” (deployed and engaged National Guard girlfriend, 24 years old).

Deployed service member’s feelings and mental health. Responses classified here focused on the emotions and psychological well-being of the deployed service member (n = 32 thematic units, 12%). Examples included: (a) “I did not tell her about the stress I felt being over there.” (deployed National Guard husband, 34 years old), (b) “How things were for me when I was unable to talk to her.” (deployed National Guard boyfriend, 43 years old), and (c) “How scared I was sometimes in Iraq.”(deployed National Guard girlfriend, 33 years old).

Romantic and family relationships. A fourth category focused on the couple’s romantic relationship, family ties, and friendships (n = 18 thematic units, 7%). Examples included: (a) “Feelings of concern for the relationship.” (deployed National Guard husband, 46 years old), (b) “Uncertainty with feelings about the relationship. Tried not to have conflict so didn’t talk about hard stuff.” (deployed National Guard girlfriend, 45 years old), and (c) “I think she sometimes didn’t tell me everything she had done during the week in order to not make me feel bad about the fun I was missing with family.” (deployed Army husband, 29 years old).

Deaths and injuries. Whereas the category on potential danger referenced the possibility of harm, this category described specific casualties and wounds in the warzone (n = 17 thematic units, 6%). Examples included: (a) “The gory part of missions (i.e., when we saw people die).” (deployed National Guard husband, 22 years old), (b) “The deaths of the four men we lost to an IED [improvised explosive device].” (deployed National Guard husband, 27 years old), and (c) “Me getting sick and having to go to sick call.” (deployed Army husband, 25 years old).

Sex and fidelity. Comments fell into this category if they mentioned sexual intimacy inside or outside of the dyad (n = 12 thematic units, 4%). Examples included: (a) “Sex while deployed, that’s the main thing everyone goes

thru during deployment, the temptation around different genders. Same goes for those in the rear (home)." (deployed National Guard wife, 26 years old), (b) "I avoided conversation which may have led my wife to be uncomfortable regarding working with females on my FOB [forward operating base]." (deployed Army husband, 55 years old), and (c) "About harmless crushes I had for fellow soldiers (did not act on any of them)." (deployed National Guard girlfriend, 32 years old).

Table 3.1. Topics Avoided During Deployment (Additional Examples of Prominent Categories).

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1. Restricted Military Information

"All operational security information [….] I only discussed items that she told me she knew about via the Internet and news." (deployed and engaged National Guard boyfriend, 39 years old)

"A lot of the specifics of what I did we didn't really talk about more because I didn't want her to be worried more than she needed to be." (deployed National Guard husband, 25 years old)

"What I was doing in [the] country: i.e. mission, location …." (deployed National Guard husband, 43 years old)

"Just what I wasn't allowed to say." (deployed National Guard husband, 24 years old)

"I avoided talking about missions and other OPSEC related items." (deployed National Guard husband, 31 years old)

"What my exact mission overseas was." (deployed National Guard husband, 26 years old)

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2. Potential Danger

"Near death experiences." (deployed National Guard husband, 33 years old)

"About danger and possible threats to my safety and others on base." (deployed National Guard girlfriend, 32 years old)

"She did not want to know about the attacks our base received from mortars and rockets or any 'war' related stuff." (deployed Army husband, 32 years old)

"I didn't discuss attacks, riots, or any other activities that would raise her level of anxiety." (deployed National Guard husband, 39 years old)

"Things she didn't want me to do (i.e., convoys and helicopter rides)." (deployed National Guard husband, 33 years old)

"The only thing we didn't talk about (that I know of) is whether or not he was getting shot at or whether or not I had any close calls in an aircraft. (We are both pilots)." (deployed National Guard wife, 30 years old)

3. Deployed Service Member's Feelings and Mental Health

"I kept from him the stress I was under." (deployed National Guard wife, 55 years old)

"My emotions about being away." (deployed Army girlfriend, 23 years old)

"I did not tell her how depressed I was feeling." (deployed National Guard husband, 40 years old)

"The stress of being away from them." (deployed National Guard husband, 32 years old)

Money. Statements about money troubles or problems following a budget were assigned to this category (*n* = 5 thematic units, 2%). Examples included: (a) "Small purchases that I knew she wouldn't approve of." (deployed National Guard husband, 27 years old), (b) "Specific finances (what did you buy, what did I buy, etc.)." (deployed Army husband, 50 years old), and (c) "Finances." (deployed National Guard wife, 25 years old).

Reunion. An eighth and final category contained responses about homecoming following deployment (*n* = 4 thematic units, 1%). Examples included: (a) "The date I will be home." (deployed National Guard husband, 34 years old), (b) "How scared I was not knowing what I would do when I got back." (deployed National Guard boyfriend, 24 years old), and (c) "Visiting my family when I got home." (deployed Army wife, 27 years old).

Study 2

Method

Study 2 relied on the same data collection procedures as Study 1 except the sample included both military personnel and at-home partners. The three eligibility criteria were (a) individuals were currently involved in a romantic relationship, (b) they or their romantic partner had returned home from deployment during the past six months, and (c) their partner had not already completed the study (for other findings from this sample, see Knobloch & Theiss, 2012; Theiss & Knobloch, 2014).

A total of 233 people (99 men, 134 women) hailing from 30 U.S. states completed the relevant measures. The sample contained 115 returning service members (49%; 98 men, 17 women) and 118 at-home partners (51%; 1 man, 117 women). Six of the returning service members were members of a dual-deployed couple.

Individuals ranged from 19 to 55 years of age (M = 33.12 years, SD = 8.38 years) and were involved in romantic relationships ranging from 1 to 37 years in length (M = 9.72 years, SD = 7.27 years). They identified themselves as Caucasian (84%), African American (8%), Hispanic (5%), Asian (1%), Native American (1%), and other (1%). The majority of participants were married (84%), lived with their romantic partner (91%), and had children (61%).

Participants were affiliated with the U.S. National Guard (62%), the Army (30%), the Marines (5%), the Air Force (2%), and the Navy (1%). The military status of the deployed service members was active duty (55%), reserves (35%), inactive ready reserves (4%), or other (6%). On average, they had been deployed for 11.45 months (*range* = 2 months to 24 months, SD = 2.73 months) and home for 3.07 months (*range* = less than one week to six months, SD = 2.18 months).

Participants answered an open-ended item adapted from Knobloch (2008). It read:

> It's normal for romantic partners to have questions about their relationship. People can have uncertainty about their own thoughts, feelings, and behaviors. They can have questions about their partner's thoughts, feelings, and behaviors. They can be unsure about the nature of the relationship itself. Please list and briefly describe issues of uncertainty you experienced during the deployment. (p. 474)

Data Analysis

We analyzed the data using the same procedures as in Study 1. The initial content analysis identified eight categories, but during the first round of coding a substantial number of thematic units fell into a generic category referencing relationship issues, so the first author made another inductive pass through the data to evaluate whether those responses could be divided further. In a second round of coding, the coders applied a new three-category coding scheme to the thematic units originally classified into the larger category. This procedure resulted in a more even distribution of thematic units across ten categories (Krippendorff's α = .83).

Results

A total of 199 participants (85%) reported at least one issue of relational uncertainty (N = 412 thematic units), and 34 participants (15%) reported that they did not experience any issues of relational uncertainty during

deployment. See Table 3.2 for supplementary examples of the most fre-quently-noted categories.

Closeness. A first category involved uncertainty about maintaining affection and preserving intimacy (n = 93 thematic units, 23% of the substantive thematic units). Examples included: (a) "Do we still feel the same way about sustaining our marriage?" (deployed Air Force wife, 39 years old), (b) "Why does it feel difficult to make connections?" (deployed National Guard husband, 28 years old), and (c) "I wondered if he was happy to get away from us." (at-home National Guard wife, 40 years old).

Sex and trust. Statements referencing questions about sexual intimacy, cheating, faithfulness, and trustworthiness fell into the second category (n = 68 thematic units, 16%). Examples included: (a) "Wondering who she's out with and where she's going. She feels insecure with the people I'm on base with." (deployed Marine husband, 25 years old), (b) "Unfaithfulness with us being apart for long periods of time, it creates uneasy feelings." (deployed National Guard husband, 26 years old), and (c) "He has breached my trust in the past, so naturally I had several doubts during the deployment…was he being faithful, was he doing anything bad that he wouldn't tell me about, etc." (at-home Marine wife, 21 years old).

Domestic responsibilities. A third category contained statements expressing uncertainty about domestic issues such as caring for children, managing finances, and completing chores (n = 66 thematic units, 16%). Examples included: (a) "I was unsure if I could handle running the house, working full-time and taking care of our preschooler without my husband around. […] Would he be resentful because I changed some things about how the household runs in his absence?" (at-home Army wife, 39 years old), (b) "How is she handling this deployment? Is the house being maintained?" (deployed Army husband, 23 years old), and (c) "Is she going to survive taking care of four kids by herself?" (deployed Army husband, 39 years old).

Deployed service member's health and safety. Questions about the well-being of the deployed individual comprised a fourth category (n = 48 thematic units, 12%). Examples included: (a) "How is he going to deal with everything he experienced overseas?" (at-home National Guard wife, 32 years old), (b) "What would I do if my soldier dies in combat?" (at-home Army husband, 29 years old), and (c) "Is my partner doing ok emotionally, mentally, and physically?" (~~deployed~~ National Guard ~~husband~~, 31 years old).

Communication. Comments in this category referenced uncertainty about the appropriate degree of contact, information exchange, and openness

about each other's daily lives (n = 34 thematic units, 8%). Examples included: (a) "I never knew what she was doing and when she was doing it." (deployed National Guard husband, 27 years old), (b) "My husband was somewhat distant. He would go a week to 10 days with absolutely no contact because he was busy. I knew he had access to a computer so this was difficult as I know he could have emailed if he chose to do so." (at-home National Guard wife, 39 years old), and (c) "Due to him not being able to tell me a lot, I felt there was a distance between us, communication wise." (at-home National Guard wife, 24 years old).

Table 3.2. Relational Uncertainty During Deployment (Additional Examples of Prominent Categories).

1. Closeness
"Whether he missed me as much as I missed him. How often he thought of me." (at-home Army wife, 30 years old)
"Would she be waiting for me?" (deployed National Guard husband, 46 years old)
"Would we be able to 'reconnect' emotionally on his return?" (at-home Army wife, 47 years old)
"I didn't know if he would still love me when he got home. My insecurities were in overdrive." (at-home National Guard wife, 39 years old)
2. Sex and Trust
"Wasn't sure how my spouse felt or thought of our sexual intimacy." (deployed National Guard husband, 32 years old)
"I didn't trust my partner and wondered if she would cheat while I was gone." (deployed National Guard husband, 35 years old)
"How did he deal with the celibacy part of deployment?" (at-home National Guard wife, 46 years old)
3. Domestic Responsibilities
"Can she handle me being gone all the time? Will I still be needed around the house?" (deployed Marine husband, 31 years old)
"There was the constant question of what/how he was taking care of our kids. Was he doing it the way I would? I constantly questioned why he would leave our kids with a babysitter for events he did not HAVE to attend." (deployed National Guard wife, 32 years old)
"I worried that my daughter who thankfully I saw born while home on leave would remember me when I returned home for good." (deployed National Guard husband, 29 years old)

4. Deployed Service Member's Health and Safety

"I was worried […] if he would even come home." (at-home Army wife, 28 years old)

"Being through several deployments, my biggest fear is what war has done to him mentally and physically." (at-home Army wife, 39 years old)

"I was always afraid for him. I was so scared at one point I wanted to just get a divorce while he was gone because the stress was too much." (at-home National Guard wife, 39 years old)

Personality changes. Some comments voiced questions about whether individuals would become different people during the deployment (n = 34 thematic units, 8%). Responses included: (a) "We were both worried about […] the other person growing and changing." (deployed National Guard wife, 21 years old), (b) "I questioned who I was. I went from a career woman to staying at home with the kids while he was away. My whole self identity was turned around." (at-home Army wife, 34 years old), and (c) "He could come home an entirely different person." (at-home Army girlfriend, 23 years old).

Reintegration. Doubts about the couple's ability to coordinate their daily lives upon homecoming fell into this category (n = 23 thematic units, 6%). Examples included: (a) "How will we act around each other when I return home?" (deployed National Guard husband, 29 years old), (b) "I was worried and uncertain if he would be ok with the routines and schedule and way of doing things that I had already set up." (at-home National Guard wife, 31 years old), and (c) "How will the deployment affect our lives after it is over?" (at-home Army husband, 29 years old).

Relationship dissolution. An eighth category indexed questions about whether participants should dissolve their relationship (n = 20 thematic units, 5%). Examples included: (a) "We are uncertain if we can stay together. The rift after 36 months of deployment in the last 60 months just might be too great." (deployed Army husband, 35 years old), (b) "Will he still want to be in a relationship when he gets home?" (at home Army girlfriend, 26 years old), and (c) "Will our marriage survive marriage enrichment counseling?" (deployed National Guard wife, 35 years old).

Personal investment in the relationship. Responses in this category depicted individuals' doubts about the utility of their involvement in the relationship (n = 18 thematic units, 4%). Examples included: (a) "Is it worth it

to be married to someone in the military when they aren't even here for long periods of time?" (at-home National Guard wife, 28 years old), (b) "I wonder if I would even be with him if the kids were not around." (at-home Army wife, 37 years old), and (c) "Many times I have wondered why I sit at home for multiple deployments and take care of everything." (at-home National Guard girlfriend, 28 years old).

Miscellaneous. A final category reflected idiosyncratic comments ($n = 8$ thematic units, 2%). Examples included: (a) "Faith – I hope he is praying." (at-home National Guard wife, 41 years old), and (b) "Holidays were hard." (deployed National Guard husband, 30 years old).

Discussion

The emotional cycle of deployment model, although not originating in the field of communication, suggests regulating privacy and managing relational uncertainty are essential communication tasks for military couples during a tour of duty (Pincus et al., 2001). We conducted two descriptive studies with the goal of ascertaining topics military couples avoid discussing (*RQ1*) and issues of relational uncertainty they experience (*RQ2*) during deployment. Our findings imply communication during deployment is infused with avoidance and questions for military couples.

Implications of the Results

Study 1 was designed to identify topics partners have difficulty discussing during deployment (*RQ1*) by collecting open-ended data from service members who had recently returned home from a tour of duty. In general, their responses fell into two broad categories: deployment issues and relationship issues. The most frequently-mentioned topics included deployment-related issues such as restricted military information, potential danger, the deployed service member's feelings and mental health, and deaths and injuries in theatre. These findings imply avoiding conversations about the mission and the well-being of the deployed service member can be protective for several reasons. Topic avoidance about mission-related details is required by military regulations to preclude information leaks that could compromise personnel safety and operational effectiveness (e.g., Greene et al., 2010), but it also might buffer the at-home partner from worry about the safety of the service member in the warzone. Moreover, topic avoidance about the deployed individual's feelings of depression,

fear, and loneliness might help him or her maintain the identity of courage and fortitude emphasized by military culture (e.g., Hall, 2011). Although we did not ask participants about their motives for topic avoidance directly, their open-ended comments hinted deployed service members evade sensitive issues to comply with military directives, safeguard at-home partners from anxiety, and defend their image.

Military personnel also reported sidestepping relationship issues such as the dynamics of their romantic and family ties, sex and fidelity, money troubles, and reunion concerns. Military couples might avoid conversations about relationship issues during deployment (a) to shield themselves from feeling vulnerable, embarrassed, or rejected, and (b) to keep interactions positive in case an unforeseen catastrophe makes the conversation a final one (e.g., Joseph & Afifi, 2010; Maguire et al., 2013; Merolla, 2010). Although suppressing discussions of conflict-laden topics can help military couples skirt tension and preserve harmony during deployment (e.g., Pincus et al., 2001), this strategy might simply postpone the inevitable and generate upheaval when issues re-emerge during reunion (e.g., Bowling & Sherman, 2008; Sayers, 2011). Hence, military couples separated by a tour of duty appear to face a thorny tension between tackling sensitive issues as they arise and maintaining an upbeat interpersonal climate.

Study 2 sought to delineate the issues of relational uncertainty military couples grapple with during deployment (*RQ2*) by soliciting open-ended statements from deployed service members and at-home partners. Participants reported questions about (a) closeness, (b) sex and trust, (c) domestic responsibilities, (d) the deployed service member's health and safety, (e) communication, (f) personality changes, (g) reintegration, (h) relationship dissolution, and (i) personal investment in the relationship. This list advances theory in three ways. First, it lends credence to the emotional cycle of deployment model's assertion that questions about relationship issues are salient among military couples during deployment (Pincus et al., 2001). Second, the list extends work on ambiguous loss (Faber et al., 2008; Wiens & Boss, 2006) by generating more specific insight into the kinds of questions deployed service members and at-home partners encounter. Finally, although the content areas bear some resemblance to the issues of relational uncertainty experienced by dating partners and spouses in general (Knobloch, 2008; Knobloch & Solomon, 1999), they also reveal nuances unique to the deployment context, which paves the way for subsequent theorizing to take into account the particular themes of relational uncertainty relevant to military couples during deployment.

Best Practices for Military Couples

Our results suggest two recommendations for helping military couples navigate core communication processes during deployment. First, deployed service members and at-home partners might benefit from being cognizant of the topics they avoid discussing and the reasons for their avoidance. Although individuals report that topic avoidance is dissatisfying in general (e.g., Caughlin & Afifi, 2004; Donovan-Kicken & Caughlin, 2010), research both inside and outside of the deployment context emphasizes the important role of motives. With respect to deployment, Joseph and Afifi (2010) discovered military wives who withheld disclosures to buffer their husband from anxiety in the warzone reported worse physical and mental health. With respect to romantic relationships more generally, Caughlin and Afifi (2004) found topic avoidance among dating partners was less dissatisfying when they were motivated to shield their relationship from harm. Moreover, Donovan-Kicken and Caughlin (2010) observed women coping with breast cancer were more dissatisfied when they engaged in topic avoidance to protect themselves from criticism or distress. Based on these findings, we eschew global advice for military couples to communicate in ways that are fully open or closely guarded in favor of temperate advice for military couples to carefully examine their motives when deciding what to express versus withhold during deployment.

A second recommendation is for military couples to ready themselves for relational uncertainty during deployment. A tour of duty is inherently ambiguous because of situational parameters such as restricted access to communication channels (e.g., Schumm et al., 2004), security regulations governing what couples can discuss (e.g., Greene et al., 2010), the ever-present threat of danger (e.g., Hoge et al., 2004), the stoicism undergirding military culture (e.g., Hall, 2011), and the possibility of infidelity (e.g., Pincus et al., 2001). Military couples probably expect to experience some uncertainty during deployment, but they might not anticipate the specific questions represented in our findings. Relational uncertainty typically is experienced as dissatisfying in romantic relationships (e.g., Knobloch, 2008), and even minor fluctuations in relational uncertainty can have a marked impact on thoughts, feelings, and behaviors (e.g., Theiss, Estlein, & Weber, 2013; Theiss & Solomon, 2008). Accordingly, educating military couples about the issues likely to elicit relational uncertainty during deployment could help them preserve relationship satisfaction.

Limitations and Directions for Future Research

Our results are qualified by notable limitations. First, Study 1 examined topics avoided by deployed service members but not at-home partners, and both

studies investigated the perceptions of only one individual per couple. Future research should collect dyadic data to evaluate the convergence or divergence between partners in their experiences of topic avoidance and relational uncertainty (e.g., Caughlin & Afifi, 2004). A second limitation lies in the retrospective nature of the self-report data. Both Study 1 and Study 2 solicited responses from individuals who had been reunited with their romantic partner in the past six months. Our findings are biased to the extent that (a) participants did not accurately recall and/or describe their experiences during deployment, and (b) features of reunion altered their perceptions of what happened during the separation. Additional work is needed to examine the dynamics of communication between military couples in the midst of deployment, despite the substantial barriers to accessing service members in theatre.

Perhaps most importantly, scholars should consider the antecedents and consequences of topic avoidance and relational uncertainty during deployment. Our studies laid the groundwork by identifying categories of topic avoidance and relational uncertainty, but our project stopped short of investigating the foundations and outcomes of these experiences for military couples separated by a tour of duty. Moreover, the connection between topic avoidance and relational uncertainty itself deserves investigation, particularly because individuals grappling with questions about involvement might refrain from discussing sensitive issues, but in turn, topic avoidance might give rise to subsequent questions (e.g., Knobloch & Theiss, 2011b). We suspect theories such as relational dialectics theory (Baxter & Braithwaite, 2008; Sahlstein et al., 2009), communication privacy management theory (Joseph & Afifi, 2010; Petronio, 2002), and the relational turbulence model (Knobloch & Theiss, 2014) will prove useful as scholarship on this issue unfolds. We submit our results as a step toward understanding the complexities of how military couples can communicate effectively in the midst of deployment.

Note

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The Role of Relational Uncertainty in Topic Avoidance among Couples with Depression

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The Role of Relational Uncertainty in Topic Avoidance among Couples with Depression

Leanne K. Knobloch, Liesel L. Sharabi, Amy L. Delaney & Samantha M. Suranne

To address a key gap in theorizing and research, we consider relational uncertainty as an explanation for why individuals experiencing depressive symptoms may be reluctant to talk about sensitive issues. We report closed-ended online survey data from 126 romantic couples in which one or both partners had been professionally diagnosed with depression. Results indicated that relational uncertainty mediated the positive association between depressive symptoms and topic avoidance. Partner effects from men to women also emerged. These findings are valuable for identifying relational uncertainty as a mechanism that may explain people's unwillingness to discuss challenging topics when they are experiencing depressive symptoms.

Keywords: Depressive Symptoms; Relational Uncertainty; Romantic Relationships; Topic Avoidance

Depression is a strikingly widespread and intensely burdensome mental illness. According to data collected by the World Health Organization, approximately 6.7% of Americans suffer from major depressive disorder each year (Kessler, Chiu, Demler, Merikangas, & Walters, 2005), and approximately 16.6% of Americans experience major depressive disorder at some point in their lives (Kessler, Berglund, et al., 2005). Symptoms include enduring sadness, pessimism, irritability, exhaustion, restlessness, chronic aches and pains, and disinterest in previously enjoyed hobbies (U.S.

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Department of Health and Human Services, National Institutes of Health, National Institute of Mental Health, 2011). Depression complicates people's social well-being, too. Individuals experiencing depressive symptoms have difficulty communicating effectively (Gabriel, Beach, & Bodenmann, 2010; Papp, Kouros, & Cummings, 2009; Rehman, Ginting, Karimiha, & Goodnight, 2010) and maintaining satisfying relationships (Kouros, Papp, & Cummings, 2008; Segrin & Rynes, 2009; Whisman, Uebelacker, & Weinstock, 2004).

Research on depression and communication has emphasized the valence of people's interaction patterns (for review, see Rehman, Gollan, & Mortimer, 2008), with data demonstrating that depressed individuals engage in more hostile and less amicable conversations (Gabriel et al., 2010; Knobloch-Fedders, Knobloch, Durbin, Rosen, & Critchfield, 2013; Zlotnick, Kohn, Keitner, & Grotta, 2000). Conversely, the connection between depression and people's avoidance behavior has been both overlooked and undertheorized (Moulds, Kandris, Starr, & Wong, 2007; Trew, 2011). Although a growing body of evidence indicates that depressed individuals are particularly motivated to avoid negative outcomes and to withdraw from challenging social situations (for review, see Trew, 2011), the mechanisms underlying the connection between depression and avoidance remain ambiguous.

We seek to advance the literature by nominating *relational uncertainty,* defined as the questions people have about their relationship (Knobloch, 2010), as a potential pathway through which depressive symptoms may motivate topic avoidance within romantic relationships. We build a conceptual framework by integrating recent theorizing about depression and relational uncertainty. Then, we test our logic using closed-ended self-report data from 126 romantic couples in which one or both partners had been professionally diagnosed with depression. Our findings contribute to the literature by: (1) extending scholarship on depression, relational uncertainty, and topic avoidance; (2) shedding light on the interplay between partners; and (3) highlighting the role of mental illness in people's communication behavior.

Theorizing about Depressive Symptoms, Relational Uncertainty, and Topic Avoidance

Topic avoidance occurs when people strategically refrain from discussing an issue with a partner (Afifi & Guerrero, 2000; Dailey & Palomares, 2004). Individuals avoid topics for a host of reasons: They seek to defend their image, they want to protect their relationship, they hope to stave off conflict, they believe their relationship is too distant to discuss the topic, they prioritize their autonomy, they consider the topic to be socially inappropriate to discuss, they think talking about the topic would be futile, and/or they feel inhibited by social norms (Afifi & Guerrero, 2000; Baxter & Wilmot, 1985; Caughlin & Afifi, 2004; Donovan-Kicken & Caughlin, 2010). Virtually any topic can be avoided within romantic relationships, but for couples grappling with depression, issues such as the dynamics of the illness and the status of the relationship may be particularly sensitive (e.g., Coyne, 1976; Joiner, 2000; Knobloch & Knobloch-Fedders, 2010). Thus, we focus our attention on *topic avoidance about*

depression and *topic avoidance about the relationship* as two topics especially germane to our theorizing.[1]

Depressive Symptoms and Topic Avoidance

Our theorizing begins with Trew's (2011) integrative model of approach and avoidance processes related to depression. Her model derives from the fundamental premise that individuals strive to approach positive outcomes and avoid negative outcomes in everyday situations. Although the bulk of scholarship on depression emphasizes deficits in people's approach behavior, Trew (2011) notes that avoidance plays an important role as well. Her integrative model conceptualizes three ways that depression and avoidance may trigger and exacerbate each other. First, depressed individuals may avoid interpersonal circumstances that could lead to negative outcomes. Although this strategy can be effective in the short term for circumventing distress, it can be debilitating in the long term because people forfeit opportunities to resolve problems, deepen social ties, and cultivate interpersonal skills. Second, depressed people who avoid challenging social situations may be vulnerable to negative information processing biases, such as heightened attention to distressing stimuli and excessive rumination. Third, depressed individuals who engage in avoidance may have difficulty accepting that certain goals are unattainable, so they persevere in pursuing unrealistic outcomes and experience repeated disappointment. All three components of Trew's (2011) integrative model imply that depressive symptoms and avoidance behaviors are closely linked.

Empirical findings are consistent with the model's assumption that people with depressive symptoms may shy away from potentially distressing situations. For example, a meta-analysis conducted by Aldao, Nolen-Hoeksema, and Schweizer (2010) documented robust positive associations between people's depressive symptoms and their use of avoidance as an emotion regulation strategy. Grant et al. (2013) observed that individuals experiencing depressive symptoms were more likely to employ avoidant coping strategies in response to a stressful event. Similarly, both Joiner (2000) and Marchand and Hock (2000) presented evidence that depressed individuals are prone to conflict avoidance. Most generally, Moulds et al. (2007) found that people's depressive symptoms were positively associated with their tendency to withdraw from social circumstances. These findings support the model's premise that depression corresponds with avoidance.

Whereas Trew's (2011) integrative model conceptualizes avoidance quite broadly as people's motivation to withdraw from circumstances that may produce negative outcomes, we apply her model at a more micro level by proposing that individuals experiencing depressive symptoms may avoid discussing sensitive topics with a romantic partner. Indeed, if depressed people prefer to withdraw from social situations than to risk negative consequences, then they may be reluctant to incur the face threats posed by discussing awkward topics. We offer a first hypothesis to test this logic:

H1: Depressive symptoms are positively associated with topic avoidance among couples with depression.

Relational Uncertainty and Topic Avoidance

Relational uncertainty is the degree of confidence (or lack of confidence) that individuals have in their perceptions of involvement within a relationship (Knobloch, 2010). Relational uncertainty emerges from three sources (Berger & Bradac, 1982; Knobloch & Solomon, 1999). *Self uncertainty* indexes the questions people have about their own participation in the relationship ("How certain am I about how important this relationship is to me?"), and *partner uncertainty* encompasses the ambiguity individuals experience about their partner's participation in the relationship ("How certain am I about how important this relationship is to my partner?"). *Relationship uncertainty* comprises the questions individuals have about the nature of the relationship itself ("How certain am I about the future of this relationship?"). The three sources tend to co-occur, such that individuals experiencing one source usually experience the others as well, but the sources are distinct both conceptually and empirically (Knobloch, 2010).

Relational uncertainty has elements that are both context-free and context-dependent. The three sources, for example, are relevant across relationship types. Indeed, individuals experience self-focused, partner-focused, and relationship-focused questions about involvement in diverse domains (cf. Knobloch & Theiss, 2011a; Theiss, Estlein, & Weber, 2013). On the other hand, the *substance* of people's questions varies according to the interpersonal situation (cf. Knobloch, 2008; Knobloch & Delaney, 2012). For example, spouses grappling with infertility are unsure about how to balance competing priorities and where to place blame for failing to achieve pregnancy (Steuber & Solomon, 2008). Individuals navigating breast cancer are unsure about managing information and achieving understanding (Weber & Solomon, 2008). Military couples reuniting after deployment are unsure about sustaining commitment and redefining roles (Knobloch & Theiss, 2012). These nuances underscore the importance of attending to both the context-free sources and the context-dependent substance of relational uncertainty.

A recent study shed light on the substance of relational uncertainty in the domain of depression. Knobloch and Delaney (2012) analyzed discourse posted to online message boards, forums, and blogs frequented by individuals with depression and their romantic partners. Their data revealed questions tied to the depression itself along with questions stemming from self, partner, and relationship sources. The eight themes in their data involved questions about: (1) the potential for self-harm, (2) who or what is responsible for the depression, (3) how to achieve understanding between partners, (4) how to cope with feelings of helplessness, (5) how to deal with identity changes, (6) how to preserve physical intimacy, (7) how to maintain relationship satisfaction, and (8) what lies ahead for the future of the relationship. We build on Knobloch and Delaney's (2012) findings by crafting a new scale to measure *relational uncertainty about depression*. We also

consider the context-free self, partner, and relationship sources of relational uncertainty to add breadth to our work. Examining the four constructs together is valuable for capturing both the context-free and context-dependent aspects of relational uncertainty relevant to depression.

We leverage theorizing about relational uncertainty to propose that individuals experiencing questions about involvement may refrain from talking about sensitive issues with their romantic partner. Knobloch and Satterlee (2009) offer three propositions about the role of relational uncertainty in message production: (1) relational uncertainty elevates the face threat of conversation, (2) it impedes people's ability to plan their messages, and (3) it discourages individuals from communicating directly about challenging topics. With respect to the first proposition, Knobloch and Satterlee (2009) argue that producing messages under conditions of relational uncertainty escalates identity threats because people lack knowledge of potential hazards, and in turn, must be mindful of all possible dangers. Second, Knobloch and Satterlee (2009) contend that a lack of information about the social situation makes it harder for individuals to plan a suitable message and anticipate their partner's response. In terms of the third proposition, Knobloch and Satterlee (2009) posit that discussing sensitive topics is difficult under conditions of relational uncertainty because individuals could damage their image, cause embarrassment, upset their partner, or exacerbate conflict (e.g., Baxter & Wilmot, 1985; Knobloch & Theiss, 2011b). Accordingly, people who are unsure about their relationship may evade direct communication about thorny issues rather than risk negative consequences.

Research conducted in both platonic and romantic contexts supports the claim that individuals experiencing relational uncertainty are prone to topic avoidance. In platonic associations, relational uncertainty is positively associated with topic avoidance among siblings (Bevan, Stetzenbach, Batson, & Bullo, 2006), in-laws (Mikucki-Enyart, 2011), stepfamily members (Afifi & Schrodt, 2003), and cross-sex friends (Afifi & Burgoon, 1998; Malachowski & Dillow, 2011). In romantic associations, relational uncertainty predicts topic avoidance among dating partners (Guerrero & Chavez, 2005; Knobloch & Carpenter-Theune, 2004; Knobloch & Theiss, 2011b) and military spouses (Knobloch, Ebata, McGlaughlin, & Theiss, 2013). These findings imply that relational uncertainty may correspond with topic avoidance among romantic couples grappling with depressive symptoms. Accordingly, we submit a second hypothesis:

H2a: Relational uncertainty about depression is positively associated with topic avoidance among couples with depression.

H2b: Self, partner, and relationship uncertainty are positively associated with topic avoidance among couples with depression.

Relational Uncertainty as a Mediator

Whereas recent theorizing is explicit that people experiencing depressive symptoms (H1) or relational uncertainty (H2) may be reluctant to discuss sensitive issues, a

unique contribution of our work lies in conceptualizing how depressive symptoms and relational uncertainty may combine to predict topic avoidance. Toward that end, we synthesize logic implicit in all three literatures to theorize that relational uncertainty may mediate the link between people's depressive symptoms and their reticence to talk about challenging topics. If depressive symptoms evoke questions about the current status and future viability of the relationship (e.g., Coyne, 1976; Joiner, 2000; Pettit & Joiner, 2006), and in turn, relational uncertainty increases the face threats of broaching delicate subjects (Knobloch & Carpenter-Theune, 2004; Knobloch, Ebata, McGlaughlin, & Theiss, 2013; Knobloch & Theiss, 2011b), then relational uncertainty may be a pathway through which people's depressive symptoms correspond with topic avoidance. Scholars have long contended that individuals with depression and their romantic partners may have difficulty determining how much they can depend on each other, whether to invest in the relationship, how to sustain feelings of closeness, and whether to make a long-term commitment (e.g., Coyne, 1976; Joiner, 2000; Knobloch & Delaney, 2012). Hence, if depressive symptoms make individuals vulnerable to relational uncertainty, and people shy away from discussing awkward topics when they are unsure about their relationship, then relational uncertainty may operate as a mediator.

Empirical evidence hints that relational uncertainty may account for the correspondence between depressive symptoms and topic avoidance. For example, studies have documented a positive correlation between people's depressive symptoms and their relational uncertainty (Knobloch & Knobloch-Fedders, 2010; Knobloch, Knobloch-Fedders, & Durbin, 2011; Knobloch & Theiss, 2011a). Findings for mediation have been less straightforward: Whereas one study did not find evidence of relational uncertainty as a mediator of the link between people's depressive symptoms and their evaluation-seeking behavior in conversation (Knobloch et al., 2011), other work has documented relational uncertainty as a mediator of the links between people's depressive symptoms and both their relationship quality (Knobloch & Knobloch-Fedders, 2010) and their difficulty adjusting to times of transition (Knobloch & Theiss, 2011a). We propose H3 based on our conceptual synthesis and the bulk of empirical evidence:

> H3a: Relational uncertainty about depression mediates the positive association between depressive symptoms and topic avoidance among couples with depression.

> H3b: Self, partner, and relationship uncertainty mediate the positive association between depressive symptoms and topic avoidance among couples with depression.

The Possibility of Partner Effects

To this point, we have constructed a conceptual framework proposing that relational uncertainty is a mechanism through which people's depressive symptoms predict their topic avoidance. Our logic thus far has been limited to individual-level

processes, but the dyadic nature of romantic relationships raises the possibility of mutual interplay between partners (e.g., Kenny & Ledermann, 2010). *Actor effects* exist when an individual's own qualities predict his or her outcomes, and *partner effects* occur when a partner's qualities predict an individual's outcomes (Kenny, Kashy, & Cook, 2006). Reciprocal influence between partners is apparent for both of the predictors embedded in our conceptual framework. For instance, a partner's depressive symptoms can spill over to dampen an individual's mental health (Benazon & Coyne, 2000; Katz, Beach, & Joiner, 1999) and satisfaction with the relationship (Whisman et al., 2004). Similarly, a partner's relational uncertainty can have implications for an individual's willingness to discuss sensitive topics (Knobloch, Ebata, McGlaughlin, & Theiss, 2013; Knobloch & Theiss, 2011b). Hence, we advance research questions to investigate the possibility of partner effects:

> RQ1a: Do partner effects exist in the associations among depressive symptoms, relational uncertainty about depression, and topic avoidance?

> RQ1b: Do partner effects exist in the associations among depressive symptoms, self, partner, and relationship uncertainty, and topic avoidance?

Method

The study employed an online survey design. We advertised by: (1) distributing flyers in community centers, (2) posting announcements to social networking sites related to depression, and (3) emailing advertisements to coordinators of depression support groups across the country. Couples were eligible if: (1) they were in a romantic relationship, (2) they were 18 years of age or older, (3) one or both partners had been professionally diagnosed with depression, and (4) they had separate email accounts.

Procedures and Participants

After both partners indicated their willingness to participate, each individual received an email message with a web address, a unique login, and a unique password to access the questionnaire. On the fourth day and the sixth day, individuals who had not yet completed the questionnaire were sent reminder email messages. On the seventh day, the login and password expired, and couples with incomplete data were eliminated from the sample. Participants received a $15 gift card from a national retailer as a token of appreciation.

The sample contained 126 heterosexual couples.[2] Individuals ranged from 20 to 83 years of age (*M* = 39.93 years, *SD* = 12.23 years). Participants were Caucasian (84%), Asian or Asian American (5%), Native American or Pacific Islander (4%), African-American (3%), Hispanic or Latino/a (3%), or of another race/ethnicity (1%). Most were married (72%); others were engaged (8%), dating seriously (17%), or dating casually (3%). The majority of couples were in geographically proximal (95%) rather than long-distance (5%) relationships, and most couples lived together in the same residence (82%). Slightly less than half of participants were parents (48%).

Individuals had been romantically involved with each other for an average of 11.58 years (*range* = 1 year to 46 years, *SD* = 10.31 years).

Approximately 72% of couples were composed of one individual with a depression diagnosis and one without a depression diagnosis; the remaining 28% of couples were composed of two individuals with a depression diagnosis. Of the 161 individuals who reported a depression diagnosis, 78% were receiving treatment for depression and 74% were taking medication for depression at the time of the study. Their diagnosis was major depressive disorder (66%), chronic mild depression/dysthymia disorder (22%), seasonal affective disorder (5%), postpartum depression (4%), or psychotic depression (3%). On average, participants had been diagnosed with depression 11.54 years prior (*range* = 1 month to 52 years, *SD* = 10.50 years). Some individuals also reported comorbid diagnoses, including anxiety disorder (46%), bipolar disorder (24%), attention problems (19%), posttraumatic stress disorder (14%), obsessive-compulsive disorder (12%), and substance abuse (8%).

Measures

We conducted confirmatory factor analyses (CFA) on all of the measures to verify their factor structure.[3] Then, we computed the scales by summing (for the measure of depressive symptoms) or averaging (for the measures of relational uncertainty and topic avoidance) the responses to the items identified as unidimensional. See Table 1 for the descriptive statistics.

Depressive symptoms. The Center for Epidemiologic Studies Depression Scale assessed people's depressive symptoms (Radloff & Locke, 1986; Wood, Taylor, & Joseph, 2010). Participants indicated how they felt and behaved during the past week (0 = *rarely*, 3 = *most of the time*). Exemplars from the 20-item scale include: (1) I felt sad, (2) I felt that I could not shake off the blues even with the help of my family and friends, and (3) I could not get going. In this sample, 51% of participants reported a composite score of 16 or higher, which is the traditional cutoff value signaling the potential for clinical depression (Radloff & Locke, 1986).

Table 1 Descriptive statistics for men and women.

	Men			Women		
	M	*SD*	*α*	*M*	*SD*	*α*
Depressive symptoms	14.64	11.85	.93	24.56	14.25	.94
Self uncertainty	2.29	1.21	.85	2.50	1.34	.88
Partner uncertainty	2.71	1.51	.94	2.93	1.64	.92
Relationship uncertainty	2.52	1.33	.88	2.55	1.41	.90
Relational uncertainty about depression	3.61	1.21	.86	3.58	1.33	.88
Topic avoidance about depression	2.96	1.64	.91	3.57	1.74	.93
Topic avoidance about the relationship	3.01	1.52	.93	3.29	1.65	.93

Note: *N* = 126 men, 126 women.

Relational uncertainty. Participants responded to items prefaced by the phrase "How certain are you about …?" (1 = *completely or almost completely uncertain*, 6 = *completely or almost completely certain*). All scores were reversed so that higher values denoted more relational uncertainty.

Self, partner, and relationship uncertainty were measured using abridged versions of Knobloch and Solomon's (1999) scales (see Knobloch & Knobloch-Fedders, 2010). *Self uncertainty* contained four items: (1) your view of your relationship, (2) how important your relationship is to you, (3) how you feel about your relationship, and (4) your goals for the future of your relationship. *Partner uncertainty* included four parallel items: (1) your partner's view of your relationship, (2) how important your relationship is to your partner, (3) how your partner feels about your relationship, and (4) your partner's goals for the future of your relationship. *Relationship uncertainty* also involved four items: (1) the current status of your relationship, (2) how you can or cannot behave around your partner, (3) the definition of your relationship, and (4) the future of your relationship.

We created a measure of *relational uncertainty about depression* in three steps. As a starting point, we examined the eight themes that emerged from Knobloch and Delaney's (2012) content analysis of relational uncertainty issues apparent in online discourse about depression, and we discarded two themes that were redundant with self, partner, and relationship uncertainty (i.e., questions about relationship satisfaction and the future of the relationship). Next, we wrote one item to address each of the remaining six themes (i.e., questions about physical harm, the source of the depression, how to achieve understanding, feelings of helplessness, identity changes, and physical intimacy) using the language of the participants quoted by Knobloch and Delaney (2012). Finally, we wrote four supplemental items to capture the general references to coping and support alluded to in Knobloch and Delaney's (2012) data.

The result was a 10-item scale: (1) whether depression will lead to self-harm, (2) the source of the depression, (3) your ability to understand what your partner is going through, (4) how to deal with feelings of helplessness or hopelessness, (5) whether your partner is still the same person as when you met, (6) how to have a satisfying sexual relationship with your partner, (7) your ability to cope with depression in your relationship, (8) how to deal with loneliness, (9) how to support your partner, and (10) how to let your partner support you.[4]

Topic avoidance. We measured people's reluctance to discuss both depression issues and relationship issues to provide a two-pronged test of our general logic about topic avoidance. Individuals rated how much they avoid discussing a series of topics with their romantic partner (1 = *never avoid discussing*, 7 = *always avoid discussing*). To assess *topic avoidance about depression*, we crafted items specifically for this study following the format employed by Afifi and Burgoon (1998). Four synonyms for depression formed the scale: (1) feelings of sadness, (2) feeling blue, (3) feeling down, and (4) feeling hopeless. To assess *topic avoidance about the relationship*, we employed seven items adapted from Afifi and Burgoon (1998): (1) the state of your relationship, (2) issues of conflict between you, (3) how you and your partner are

getting along, (4) expectations for your relationship, (5) sex, (6) behaviors that put a strain on your relationship, and (7) how your relationship is going.

Results

Bivariate Analyses

We began by computing bivariate correlations among men, among women, and within couples (see Table 2). Findings revealed positive associations among the independent variables and among the dependent variables. In support of H1, men's and women's depressive symptoms were positively associated with their topic avoidance about depression and the relationship. With respect to H2, relational uncertainty was positively associated with topic avoidance in 15 of 16 tests; the exception was that self uncertainty was uncorrelated with topic avoidance about depression for men. Finally, the within-couple correlations indicated positive associations between men's data and women's data for all of the variables except depressive symptoms.

We also compared men and women via paired samples t-tests. Results indicated that women ($M = 24.56$, $SD = 14.25$) reported more severe depressive symptoms than men ($M = 14.64$, $SD = 11.85$), t (125) = 6.38, $p < .001$. Similarly, women ($M = 3.57$, $SD = 1.74$) reported more topic avoidance about depression than men ($M = 2.96$, $SD = 1.64$), t (125) = 3.85, $p < .001$.

Third, we considered people's professional depression diagnosis status as a predictor of the independent and dependent variables. We conducted independent samples t-tests separately for men ($n = 77$ without a depression diagnosis, 49 with a depression diagnosis) and women ($n = 14$ without a depression diagnosis, 112 with a depression diagnosis) to address the statistical dependence within couples. Not surprisingly, results for both men and women indicated that individuals with a depression diagnosis (men $M = 20.97$, $SD = 12.83$; women $M = 26.22$, $SD = 13.99$) reported experiencing more depressive symptoms than those without a depression

Table 2 Bivariate correlations for men, for women, and within couples.

	V1	V2	V3	V4	V5	V6	V7
V1: Depressive symptoms	*.12*	.14	.30**	.35***	.33***	.20*	.21*
V2: Self uncertainty	.28**	*.34***	.66***	.77***	.52***	.16	.27**
V3: Partner uncertainty	.23*	.64***	*.29**	.78***	.60***	.33***	.29**
V4: Relationship uncertainty	.21*	.75***	.69***	*.48***	.64***	.29**	.45***
V5: Relational uncertainty about depression	.44***	.60***	.56***	.56***	*.48***	.35***	.37***
V6: Topic avoidance about depression	.34***	.27**	.43***	.35***	.46***	*.46***	.65***
V7: Topic avoidance about the relationship	.25**	.39***	.42***	.31***	.56***	.73***	*.43***

Note: $N = 126$ men, women, or dyads. Correlations for men appear above the diagonal; correlations for women appear below the diagonal. Within-couple correlations appear on the diagonal and are italicized.
*$p < .05$; **$p < .01$; ***$p < .001$.

diagnosis (men $M = 10.61$, $SD = 9.20$; women $M = 11.26$, $SD = 8.22$), men t (124) = 4.91, $p < .001$, women t (124) = 5.84, $p < .001$. No differences were apparent in any of the measures of relational uncertainty or topic avoidance. Accordingly, we focused on people's reports of their depressive symptoms in our substantive analyses (rather than their depression diagnosis status) as the more proximal indicator.

Finally, we evaluated features of people's romantic relationships as potential covariates via independent samples *t*-tests (see Table 3). These tests, again conducted separately for men and women, compared participants who were married ($n = 91$) versus those who were not ($n = 35$), participants who were living together ($n = 103$) versus those who were living apart ($n = 23$), and participants who were parents ($n = 60$) versus those who were not ($n = 66$). Results indicated statistically significant differences in 13 of 42 tests (31%). In general, participants who were married, those who were living together, and those who were parents reported more topic avoidance. Moreover, married women reported less depressive symptoms than non-married women, men who were living with their partner reported less self uncertainty, and women who were living with their partner reported less relationship uncertainty. Based on these results, we covaried marital status, cohabitation status, and parental status in the multivariate analyses.

Multivariate Analyses

Structural equation modeling was employed for the multivariate analyses following procedures recommended by Kenny et al. (2006). Structural equation modeling has

Table 3 Independent samples *t*-tests for men and women.

	Yes		No		
	M	*SD*	*M*	*SD*	*t* (124)
Married (n = 91) *versus non-married* (n = 35)					
Women: depressive symptoms	22.71	(14.96)	29.37	(10.99)	−2.74**
Women: topic avoidance about depression	3.78	(1.73)	3.01	(1.65)	2.26*
Men: topic avoidance about the relationship	3.20	(1.47)	2.54	(1.54)	2.26*
Women: topic avoidance about the relationship	3.50	(1.71)	2.76	(1.38)	2.52*
Living together (n = 103) *versus living apart* (n = 23)					
Men: self uncertainty	2.16	(1.09)	2.93	(1.53)	−2.20*
Women: relationship uncertainty	2.39	(1.28)	3.03	(1.59)	−2.03*
Men: topic avoidance about depression	3.11	(1.64)	2.25	(1.51)	2.22*
Women: topic avoidance about depression	3.70	(1.73)	2.87	(1.58)	2.10*
Men: topic avoidance about the relationship	3.17	(1.51)	2.22	(1.29)	2.70**
Parents (n = 60) *versus non-parents* (n = 66)					
Men: topic avoidance about depression	3.35	(1.66)	2.62	(1.56)	2.54*
Women: topic avoidance about depression	4.18	(1.63)	3.00	(1.65)	4.04***
Men: topic avoidance about the relationship	3.45	(1.48)	2.63	(1.45)	3.14**
Women: topic avoidance about the relationship	3.77	(1.61)	2.85	(1.58)	3.23**

Note: $N = 126$ men or women. Tests not reported were not statistically significant at $p < .05$.
*$p < .05$; **$p < .01$; ***$p < .001$.

the capacity to: (1) address measurement error, (2) handle nested data, (3) evaluate actor and partner effects, and (4) test for mediation. We began by covarying marital status, cohabitation status, and parental status from all of our independent and dependent variables. Then, we constructed the models by: (1) treating the dyad as the unit of analysis, (2) forming parcels to represent the latent variables, (3) fixing the error variance of each parcel to $(1 - \alpha) \times (\sigma)$ to model measurement error, and (4) centering the predictors around the mean of the sample. We allowed the exogenous variables and the disturbance terms for the endogenous variables to covary within couples.

To avoid multicollinearity, we tested four models containing: (1) either topic avoidance about depression or topic avoidance about the relationship as the dependent variable and (2) depressive symptoms paired with either relational uncertainty about depression or self, partner, and relationship uncertainty as the independent variables. The criteria for model fit were χ^2/df less than 3.00, CFI greater than .950, and RMSEA less than .080 (Browne & Cudeck, 1993; Hu & Bentler, 1999; Kline, 2011; MacCallum, Browne, & Sugawara, 1996).

Relational Uncertainty about Depression as a Mediator

A first pair of models tested an individual's relational uncertainty about depression as a mediator of the association between his or her depressive symptoms and topic avoidance (H2a, H3a, RQ1a). We constructed models containing paths from the depressive symptoms of men and women to their own relational uncertainty about depression, and in turn, from their own relational uncertainty about depression to one indicator of topic avoidance (see Figure 1). Findings indicated that the fit was only marginal for the models predicting topic avoidance about depression, $\chi^2/df = 1.854$, CFI = .953, RMSEA = .083, and topic avoidance about the relationship, $\chi^2/df = 2.095$, CFI = .944, RMSEA = .094. Inspection of the modification indices indicated the presence of a partner effect for both models such that men's depressive symptoms predicted women's relational uncertainty about depression (RQ1a). With the addition of that one path, the fit was acceptable for the models predicting topic avoidance about depression, $\chi^2/df = 1.142$, CFI = .993, RMSEA = .034, and topic avoidance about the relationship, $\chi^2/df = 1.230$, CFI = .990, RMSEA = .043. These models support H2a by documenting a positive association between relational uncertainty about depression and topic avoidance.

To calculate the magnitude of the mediated association between depressive symptoms and topic avoidance, we employed bias-corrected bootstrapping procedures (Preacher & Hayes, 2004, 2008) with 1,000 samples to estimate 95% confidence intervals around the indirect effects. Findings confirmed three mediated effects for the model predicting topic avoidance about depression: (1) an actor effect for men = .16, $p = .001$ [.05–.29], (2) an actor effect for women = .26, $p = .001$ [.13–.40], and (3) a partner effect from men to women = .12, $p = .011$ [.03–.22]. Similarly, three mediated effects were apparent for the model predicting topic avoidance about the relationship: (1) an actor effect for men = .17, $p < .001$ [.06–.30], (2) an actor effect
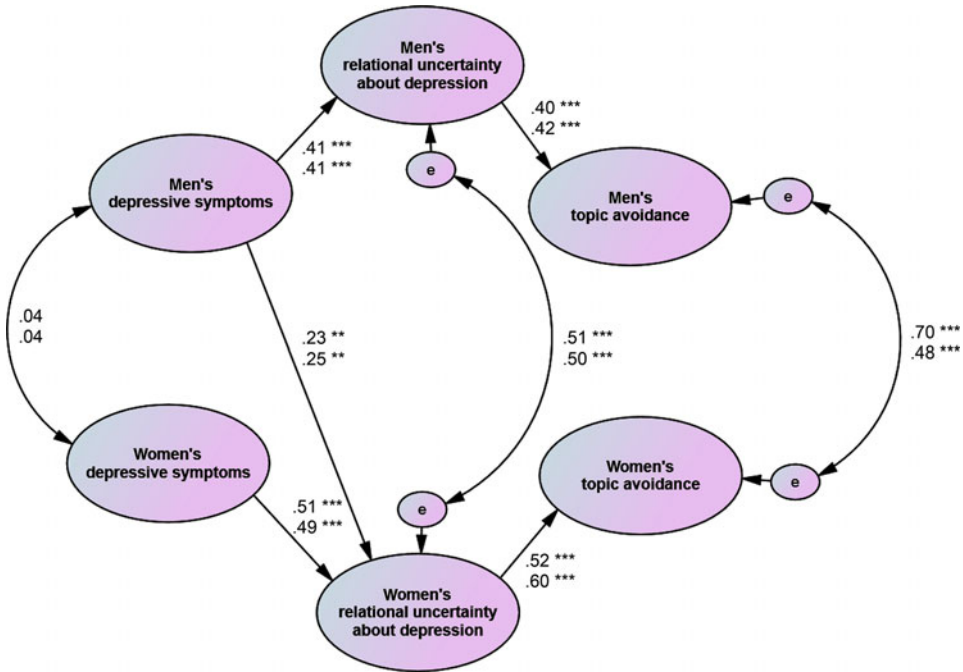
Figure 1 Final model for depressive symptoms and relational uncertainty about depression predicting topic avoidance.
Note: Values on the top indicate standardized regression weights and covariances for the model predicting topic avoidance about depression. Values on the bottom correspond with the model predicting topic avoidance about the relationship.

for women = .29, $p < .001$ [.16–.44], and (3) a partner effect from men to women = .15, $p = .006$ [.04–.28]. These findings are consistent with the mediation anticipated by H3a. They also suggest a partner effect such that men's depressive symptoms are positively associated with women's relational uncertainty about depression (RQ1a).

Self, Partner, and Relationship Uncertainty as Mediators

A second pair of models evaluated an individual's self, partner, and relationship uncertainty as mediators of the link between depressive symptoms and topic avoidance (H2b, H3b, RQ1b). As shown in Figure 2, we constructed models containing paths: (1) from individuals' depressive symptoms to their own self uncertainty and partner uncertainty (as per Knobloch & Knobloch-Fedders, 2010; Knobloch et al., 2011; Knobloch & Theiss, 2011a), (2) from their own self and partner uncertainty to their own relationship uncertainty (as per Knobloch & Carpenter-Theune, 2004), and (3) from their own relationship uncertainty to their own topic avoidance about depression or the relationship. Results indicated that the models did not fit the data for topic avoidance about depression, $\chi^2/df = 6.430$, CFI =
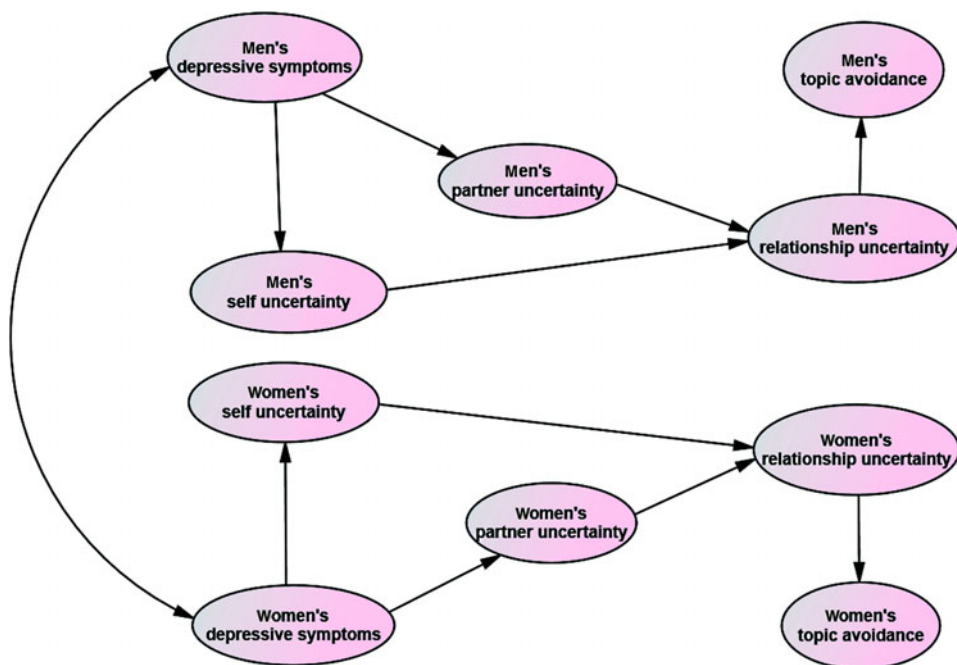
Figure 2 Hypothesized model for depressive symptoms and relational uncertainty predicting topic avoidance.
Note: These models also included covariances in the error terms of the endogenous variables between partners.

.696, RMSEA = .208, or topic avoidance about the relationship, χ^2/df = 6.289, CFI = .706, RMSEA = .206.

Three sets of theoretically reasonable modifications were required to achieve model fit (see Figure 3). First, we added paths from individuals' self uncertainty to their own partner uncertainty. These associations are reminiscent of the pathways linking partner uncertainty with self uncertainty that have emerged in previous investigations (e.g., Knobloch & Carpenter-Theune, 2004; Theiss & Solomon, 2006). Second, the data suggested nuances in the associations between people's depressive symptoms and their relational uncertainty. In particular, we: (1) replaced the path from men's depressive symptoms to their self uncertainty with a path to their relationship uncertainty and (2) deleted the path from women's depressive symptoms to their partner uncertainty. These modifications echo prior findings that people's depressive symptoms are more strongly linked with some sources of relational uncertainty than others (Knobloch, Ebata, McGlaughlin, & Ogolsky, 2013; Knobloch & Knobloch-Fedders, 2010; Knobloch et al., 2011). Third, the data indicated that the three sources of relational uncertainty were not full mediators for women's topic avoidance (H3b). We added paths: (1) from women's depressive symptoms to their own topic avoidance and (2) from men's depressive symptoms to women's topic avoidance only in the model predicting topic avoidance about the relationship. These
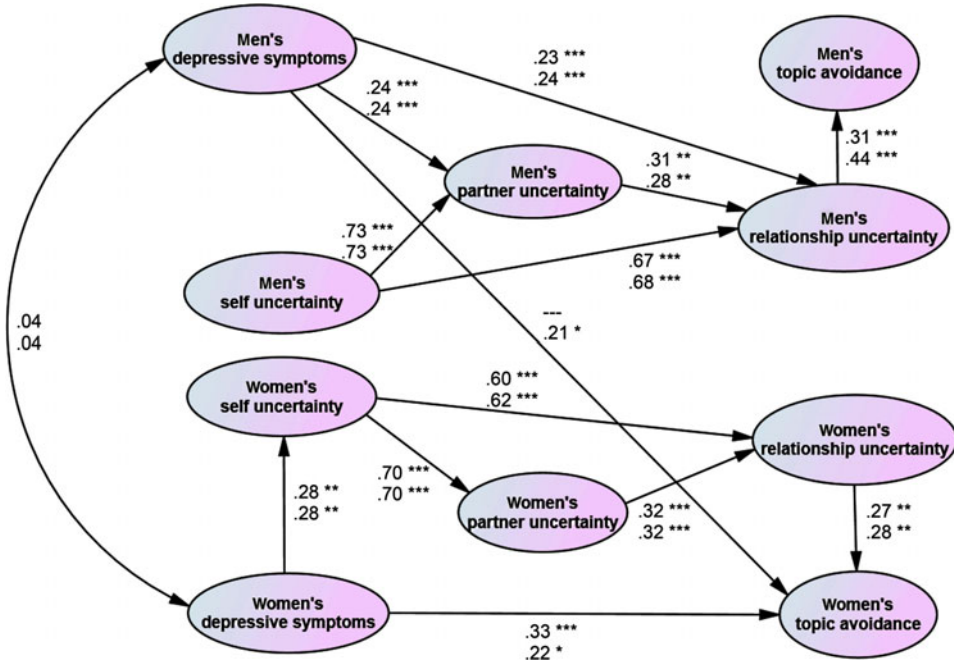
Figure 3 Final model for depressive symptoms and relational uncertainty predicting topic avoidance.
Note: Values on the top correspond with the model predicting topic avoidance about depression. Values on the bottom correspond with the model predicting topic avoidance about the relationship. See note 5 for the between-partner covariances of the error terms for the endogenous variables.

modifications resulted in acceptable fit for the models predicting topic avoidance about depression, $\chi^2/df = 1.749$, CFI = .961, RMSEA = .077, and topic avoidance about the relationship, $\chi^2/df = 1.762$, CFI = .962, RMSEA = .078.

A final step involved computing the indirect effects. We utilized bias-corrected bootstrapping procedures with 1,000 samples to calculate 95% confidence intervals. For men, statistically significant indirect actor effects were evident for the models predicting both topic avoidance about depression, .09, $p = .002$ [.07–.13], and topic avoidance about the relationship, .14, $p = .002$ [.11–.17]. These findings are consistent with the mediation anticipated by H3b. For women, partial mediation was apparent such that statistically significant indirect actor effects emerged for the models predicting both topic avoidance about depression, .06, $p = .002$ [.04–.09], and topic avoidance about the relationship, .07, $p = .001$ [.05–.10]. These findings imply that the three sources of relational uncertainty may partially mediate, but not fully mediate, the association between depressive symptoms and topic avoidance for women (H3b).[5]

Discussion

Scholars have devoted substantial attention to documenting negativity as a hallmark of conversations between depressed individuals and their romantic partners (Gabriel et al., 2010; Rehman et al., 2008); in contrast, the role of avoidance behavior in the context of depression has received less consideration (Moulds et al., 2007; Trew, 2011). We posed relational uncertainty as an explanation for why people experiencing depressive symptoms may be reluctant to talk about delicate topics with their romantic partner. Our results indicated that both depressive symptoms (H1) and relational uncertainty (H2) were positive predictors of topic avoidance. Moreover, relational uncertainty fully mediated the link between depressive symptoms and topic avoidance in six of eight tests (H3). Partner effects from men to women were visible as well (RQ1). These findings are important not only for evaluating Trew's (2011) integrative model within the context of romantic relationships, but also for showcasing how theorizing from the communication discipline can illuminate the behavioral dynamics of depression.

Implications of the Results

Trew's (2011) integrative model contends that depression is prompted and perpetuated, in part, by people's inclination to avoid difficult social situations. We utilized her general logic to investigate people's unwillingness to discuss topics related to depression and their relationship. Results consistent with her framework revealed that people's depressive symptoms were positively associated with their topic avoidance (H1). Accordingly, our results lend credence to her proposition that individuals experiencing depressive symptoms may shy away from potentially problematic interactions. To our knowledge, our study is the first to test Trew's (2011) model within the field of communication, and our findings hint at the utility of importing her ideas from the discipline of clinical psychology into the discipline of communication.

Individuals experiencing relational uncertainty reported engaging in more topic avoidance (H2). In one sense, this finding is far from novel: Prior work has shown that relational uncertainty predicts people's reticence to talk about sensitive topics within family relationships (Afifi & Schrodt, 2003; Bevan et al., 2006; Mikucki-Enyart, 2011), friendships (Malachowski & Dillow, 2011), dating relationships (Guerrero & Chavez, 2005; Knobloch & Carpenter-Theune, 2004), and marriage (Knobloch, Ebata, McGlaughlin, & Theiss, 2013). In another sense, the result adds two insights to the literature on relational uncertainty. A modest step forward involves measurement: This study formulated a unidimensional multi-item index to capture the questions salient in romantic relationships marked by depression. A larger step forward involves context: This investigation documented a link between relational uncertainty and topic avoidance among couples grappling with depression. Accordingly, our findings highlight the usefulness of examining mental illness

through a communicative lens to complement research employing a psychological lens (e.g., Fisher et al., 2012; Rehman et al., 2008; Segrin, 2011).

Mixed support was apparent for our capstone premise that relational uncertainty mediates the link between depressive symptoms and topic avoidance (H3). Full mediation emerged in six of eight tests: (1) for men and women in the models including relational uncertainty about depression predicting both forms of topic avoidance and (2) for men in the models including self, partner, and relationship uncertainty predicting both forms of topic avoidance. In contrast, partial mediation surfaced for women in the models including self, partner, and relationship uncertainty predicting both forms of topic avoidance. Regardless of whether relational uncertainty absorbs some versus all of the covariation between people's depressive symptoms and their topic avoidance, our findings echo two studies implying that relational uncertainty may be a route through which people's depressive symptoms are problematic within romantic relationships (Knobloch & Knobloch-Fedders, 2010; Knobloch & Theiss, 2011a). Decades of studies have demonstrated that depression corresponds with dyadic distress (Kouros et al., 2008; Whisman, 2001; Whisman et al., 2004), but the quest to identify the underlying mechanisms sometimes results in the disconfirmation—rather than the confirmation— of mediators (Gordon, Friedman, Miller, & Gaertner, 2005; Knobloch et al., 2011; Weinstock & Whisman, 2004). Hence, the findings for H3 arguably are the most newsworthy contribution of our investigation.

Calls have been mounting for scholars to conceptualize and investigate topic avoidance using a dyadic approach (e.g., Dailey & Palomares, 2004; Knobloch & Carpenter-Theune, 2004), and our couple-level data afforded an opportunity to examine how a partner's depressive symptoms and relational uncertainty predict an individual's topic avoidance (RQ1). Two partner effects from men to women were evident. Men's depressive symptoms were positively associated with: (1) women's relational uncertainty about depression (see Figure 1) and (2) women's topic avoidance about the relationship in the models containing self, partner, and relationship uncertainty (see Figure 3). One implication is that women's communication patterns may be relatively sensitive to men's depression symptoms; women appear reluctant to broach thorny topics when their partner is grappling with depression symptoms. These findings resonate with Gabriel et al.'s (2010) data showing that romantic partners of depressed individuals engage in less emotional self-disclosure during conflict. More broadly, our results exemplify a trademark principle of interpersonal communication: People's communication behavior is rooted in their partner's experiences as well as their own (e.g., Knapp & Daly, 2011).

Our findings also have ramifications for practice. If individuals experiencing relational uncertainty about depression (including questions about harming them-selves, identifying the source of the depression, managing feelings of helplessness and loneliness, soliciting advice, and giving and receiving support) are unwilling to broach challenging topics, then they may be forfeiting valuable opportunities to preserve the health and safety of both partners. Our results suggest that skill-based interventions for depression should target the avoidance dimension of people's

communication behavior in addition to the valence dimension. Indeed, as Trew (2011) notes, clinical programs to treat depression are likely to benefit from increased attention to both deficits in people's approach behavior and surpluses in their avoidance behavior.

Most generally, our findings move the literature forward in four ways. On a theoretical plane, our results illustrate the value of bridging context-free and context-dependent logic to shed light on the dynamics of interpersonal communication within health domains. We paired general reasoning about relational uncertainty with Trew's (2011) depression-specific framework to generate a more robust view of people's reluctance to discuss sensitive issues when they are experiencing depressive symptoms. Second, our findings provide initial evidence that relational uncertainty may be a pathway through which people's depressive symptoms are manifest in their communication. Relative to the constructs that have been dismissed as mediators of the link between depressive symptoms and dyadic outcomes (e.g., Gordon et al., 2005; Weinstock & Whisman, 2004), relational uncertainty seems to be a promising mechanism. A third contribution lies in documenting partner effects from men to women. Not only do these results demonstrate the ripple effects of depressive symptoms (e.g. Benazon & Coyne, 2000; Katz et al., 1999), but they also emphasize the importance of involving both partners in treatment (e.g., Whisman, Johnson, & Li, 2012). Finally, with respect to application, our findings suggest that people may avoid key topics when they most need to solicit coping resources (e.g., individuals with depressive symptoms may forgo opportunities to receive support, partners may miss occasions to provide help and to understand the illness experience). Relational uncertainty, then, appears to be an important target for intervention in this domain.

Limitations and Directions for Future Research

Several limitations constrain the scope of our findings. First, our research design privileged precise measurement over rich detail. Observational methods would be useful for understanding the nuances of topic avoidance within conversation. Second, our sample was relatively homogenous with respect to race, marital status, and cohabitation status, which prohibited reasonable tests of moderation. Some cohorts reported more topic avoidance than others: (1) women more than men, (2) married individuals more than non-married individuals, (3) those who were living together more than those who were living apart, and (4) parents more than nonparents (see Table 3). One possible explanation is that partners whose daily lives are more enmeshed (e.g., married, living together, parents) need to be more overtly strategic when concealing information than partners whose daily lives are more independent, but more diverse samples are needed to illuminate diversity tied to the demographic attributes of individuals and relationships (e.g., Whitton & Kuryluk, 2013).

Other routes stem from questions left unanswered by our data. For example, because our sample contained a mix of couples with a single depression diagnosis (72%) versus a dual depression diagnosis (28%), the statistical dependence within dyads precluded a test of actor and partner effects distinguished by depressed versus

nondepressed individuals. Untangling these dynamics will require data from larger samples of the target cohorts. Second, people's reluctance to talk about depression issues versus relationship issues shared very similar associations with our independent variables, but researchers may find it useful to theorize about situations in which people's willingness to discuss depression may diverge from their willingness to discuss their relationship. Third, our structural equation models required several modifications to achieve fit, which introduced a data-driven element to our test of theory. We were careful only to make alterations that were conceptually sensible, but the post hoc paths have questionable validity to the extent that they capitalized on chance. Caution is warranted in interpreting the model modifications until they can be evaluated by future research.

Final directions for future research involve extending theory at the nexus of depression, relational uncertainty, and communication. We cast depressive symptoms and relational uncertainty as predictors of avoidance, but reverse routes are possible. Indeed, communication difficulties may erode people's confidence in their relationship, thereby escalating their depressive symptoms (Grant et al., 2013; Whitton & Whisman, 2010). Data collected over time are vital for teasing apart these pathways. Moreover, our study only scratched the surface of Trew's (2011) very complex framework. Her model's core premise is that people's disinclination to approach rewarding situations and their inclination to avoid costly situations trigger a self-perpetuating cycle that both produces and propagates depression. Fully testing her model would require prospective longitudinal data on multiple motives and communication processes.

Conclusion

This study contributes to the literature by theorizing about the relatively understudied connection between people's depressive symptoms and their avoidance behavior. We applied Trew's (2011) general logic to the more specific communication domain of topic avoidance about depression issues and relationship issues. Our data provide initial evidence that relational uncertainty may explain why individuals experiencing depressive symptoms are reluctant to discuss sensitive topics (H1, H2, H3). Moreover, our findings underscore interdependence within dyads by revealing that men's depressive symptoms have implications for women's topic avoidance (RQ1). Our results also have pragmatic value for suggesting that relational uncertainty may be a site of intervention for helping people with depressive symptoms be more comfortable discussing challenging issues. Finally, our data showcase the value of melding the study of mental health with the study of communication. We submit our results as a step toward unraveling the complexities of people's avoidance behavior in the context of depression.

Acknowledgements

Notes

[1] We evaluated this assumption by surveying our participants about a broad range of avoided topics that have surfaced in the literature (e.g., Afifi & Schrodt, 2003; Caughlin & Afifi, 2004), including: (1) friendships with other people, (2) money, (3) family members, (4) everyday events, (5) household chores, and (6) drinking, smoking, and the use of drugs. This general measure of topic avoidance was unidimensional according to CFA results, but as we anticipated, participants reported less topic avoidance about these issues ($M = 2.31$, $SD = 1.22$, $\alpha = .81$) than about depression ($M = 3.59$, $SD = 1.27$) or the relationship ($M = 3.15$, $SD = 1.59$). The results for the general measure were relatively similar to the results for topic avoidance about depression and the relationship, so we focus on the two more salient issues for parsimony.

[2] Although the study was open to both heterosexual and homosexual couples, the small number of homosexual couples who participated precluded meaningful comparisons. Hence, data from six lesbian couples and three gay couples were eliminated from the sample.

[3] Please contact the first author for the CFA results.

[4] The four measures of relational uncertainty shared strong positive bivariate correlations (see Table 2), but subsidiary CFA results indicated that three models attempting to account for the overlap did not fit the data: (1) a single-factor model, (2) a four-factor model, and (3) a second-order model. We considered the four measures separately in light of these results coupled with theorizing about the nature of relational uncertainty (Knobloch, 2010).

[5] Covariances of the error terms between partners were: (1) self uncertainty = .50, $p < .001$, (2) partner uncertainty = −.02, ns, (3) relationship uncertainty = .06, ns, (4) topic avoidance about depression = .48, $p < .01$, and (5) topic avoidance about the relationship = .71, $p < .001$.

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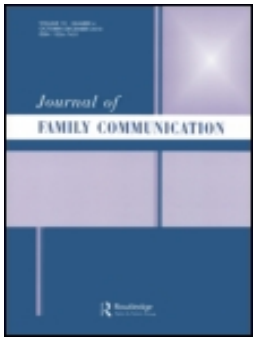
Communication of Military Couples During Deployment and Reunion: Changes, Challenges, Benefits, and Advice

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Communication of Military Couples During Deployment and Reunion: Changes, Challenges, Benefits, and Advice

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ABSTRACT

The *emotional cycle of deployment model* proposes that military couples face both obstacles and opportunities across the trajectory of deployment. Guided by the model, we seek to address gaps in the literature by investigating how 236 recently reunited service members and at-home partners (*N* = 118 couples) describe their experiences during deployment and reunion. Results of content analyses revealed a variety of changes to communication during deployment (RQ1), challenges of reunion (RQ2), benefits of deployment (RQ3), and advice for reintegration (RQ4). These findings bolster and extend the emotional cycle of deployment model; they also have practical utility for helping military couples navigate deployment and reunion.

Deployment can have profound consequences for military couples throughout each stage of the process. During deployment, service members need to execute the responsibilities of their mission while also staying connected with family members (McCarroll, Hoffman, Grieger, & Holloway, 2005; McNulty, 2005). At-home partners need to establish new routines, run the household and/or care for children independently, and maintain their relationship with the service member (Lapp et al., 2010; Lara-Cinisomo et al., 2012). After deployment, both returning service members and at-home partners need to reintegrate their daily lives while rekindling their family ties (Faber, Willerton, Clymer, MacDermid, & Weiss, 2008; Karakurt, Christiansen, MacDermid Wadsworth, & Weiss, 2013). These duties can create a pile-up of stressors for all family members, but they also can offer opportunities for family members to grow and mature (Karakurt et al., 2013; Wiens & Boss, 2006). Hence, a critical task for both researchers and practitioners is to understand the experiences of military couples during deployment and reunion (Carter & Renshaw, 2015; Willerton, MacDermid Wadsworth, & Riggs, 2011). We take up that task here.

Studies have identified substantial negative effects of deployment on military couples. After the start of the war in Iraq, for example, the prevalence of mental health diagnoses increased substantially for both active duty and reserve component service members (Seal et al., 2009). Moreover, Army wives whose husbands deployed to Afghanistan or Iraq used mental health services at a rate 19% to 27% higher than Army wives whose husbands did not deploy (Mansfield et al., 2010). Military couples separated by deployment also face the strains of interacting from afar, including the complexities of engaging in relationship maintenance (Maguire, Heinemann-LaFave, & Sahlstein, 2013; Merolla, 2010) and adjusting upon reunion (Knobloch & Theiss, 2012).

Although the negative effects of deployment are well documented, many military couples are remarkably resilient (e.g., Bonanno et al., 2012; Karney & Crown, 2011). The literature also hints that

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deployment can have positive consequences for military couples. Indeed, deployment can provide opportunities for individual growth (e.g., American Psychological Association, 2007; Hosek, Kavanagh, & Miller, 2006) and constructive changes in marital and family relationships (e.g., Baptist et al., 2011; Easterbrooks, Ginsburg, & Lerner, 2013). In fact, some returning service members and at-home partners report that deployment can enhance closeness (Knobloch & Theiss, 2012). Findings such as these showcase the need for systematic research on the benefits of deployment for military families (e.g., Karney & Crown, 2011; Park, 2011).

The *emotional cycle of deployment model* (Pincus, House, Christenson, & Adler, 2001) is the theoretical perspective that guides our investigation. Consistent with the model's core constructs of *changes, challenges*, and *benefits*, we describe a study in which 118 recently reunited military couples reported on how their communication changed during deployment, the challenges they encountered upon reunion, and the benefits they experienced from deployment. We also report their advice for reintegration. Our findings are valuable for (a) extending theorizing on the emotional cycle of deployment model, (b) filling a gap in research by identifying positive outcomes of deployment alongside negative ones, and (c) offering pragmatic recommendations for improving the well-being of military couples.

The emotional cycle of deployment model

Deployment can be usefully conceptualized as a process that unfolds in distinct yet systematic stages (e.g., Peebles-Kleiger & Kleiger, 1994). The *emotional cycle of deployment model* (Pincus et al., 2001) is perhaps the best-known process model of deployment; it was constructed by military psychiatrists who drew on their clinical expertise, their personal experience, and their synthesis of research. The model partitions the deployment cycle into five stages that pose unique challenges. Military families who are able to master the complexities of each stage will thrive; those who are unable to do so will experience emotional strife.

The *predeployment stage* begins when military command issues orders for service members to deploy. Individuals may feel caught between seeking increased intimacy versus accomplishing the domestic tasks required for the impending separation. The *deployment stage* refers to the first month after service members leave for the mission. People may be overwhelmed by the responsibilities they face, but they also may be relieved that the anticipation of departure is over. Conversations between service members and at-home family members may help alleviate apprehension, but if those conversations are negative, individuals may experience more—rather than less—distress. During the *sustainment stage*, service members and their families develop new routines and establish new sources of support. People may start to show the strain of separation, which can be exacerbated by unreliable communication technology linking service members to at-home family members. The *re-deployment stage* occurs during the last month of deployment and is characterized by conflicting emotions. Although individuals may be excited for reunion, they also may be nervous about how to reconnect and readjust. Finally, the *postdeployment stage* lasts up to six months after the service member's arrival home. Families may experience a honeymoon phase followed by awkwardness and frustration as they work to re-establish daily routines and emotional closeness.

The model highlights three constructs central to the trajectory of deployment: (a) changes, (b) challenges, and (c) benefits (Pincus et al., 2001). Together, the constructs provide a unified conceptual framework for theorizing about the experiences of service members and at-home partners during deployment and reunion. Although the model is widely cited, it has not received systematic empirical examination (MacDermid Wadsworth, 2010; Park, 2011), commensurate with the largely descriptive orientation of the literature (Park, 2011). We review the scant work on each construct and then pose research questions to guide our investigation.

Changes

The model features change as a salient feature of the process (Pincus et al., 2001; see also Knobloch, Pusateri, Ebata, & McGlaughlin, 2014). In particular, it implies that the communication patterns of

service members and at-home partners are likely to change across the deployment cycle. Research coheres with the model both by identifying the turning points that occur during deployment (Sahlstein Parcell & Maguire, 2014) and by describing how military couples adapt their communication during various stages when seeking to maintain their relationship (Maguire et al., 2013; Merolla, 2010), to manage dialectical tension (Sahlstein, Maguire, & Timmerman, 2009), and to regulate disclosures (Joseph & Afifi, 2010; Rossetto, 2013). As these studies illustrate, prior work has tended to focus on particular communication processes (e.g., relationship maintenance, dialectical tension, disclosure) at specific points in the deployment trajectory (e.g., predeployment, deployment, postdeployment). We pose RQ1 to more holistically and comprehensively assess people's perceptions of communication changes:

RQ1: What communication changes, if any, do military couples report experiencing from before deployment until after reunion?

Challenges

The emotional cycle of deployment model emphasizes that service members and at-home partners encounter substantial challenges. Notably, the difficulties of deployment itself have been well established. Military couples face both physical difficulties, such as illness and sleep disturbances, and psychological difficulties, such as depression and anxiety, when separated by deployment (for reviews, see MacDermid Wadsworth, 2010; Sheppard, Malatras, & Israel, 2010). Far less is known about the challenges that arise during reunion, although findings suggest that military couples might have difficulty negotiating roles, coordinating interdependence, and managing emotions (Karakurt et al., 2013; Vormbrock, 1993). Other work implies that military couples might grapple with questions about the status of their relationship and encounter disruptions to their everyday routines (Knobloch & Theiss, 2012). In response to calls for in-depth research on the issues facing military couples upon homecoming (e.g., Karakurt et al., 2013; Park, 2011), we offer a second research question:

RQ2: What challenges, if any, do military couples report experiencing during reunion following deployment?

Benefits

The model hints that deployment may furnish positive outcomes if military couples capitalize on the opportunity to improve their relationship (Pincus et al., 2001). Military personnel report positive consequences of deployment such as completing meaningful work, building camaraderie within the unit, making money, improving themselves and their relationships, and having a greater appreciation for life in the U.S. (Hosek et al., 2006; Newby et al., 2005). Service members and spouses also report greater appreciation, more self-reliance, and a stronger religious faith (Baptist et al., 2011). Although these studies shed light on the potential benefits of deployment for individuals, we are not aware of any work that has examined the positive outcomes of deployment for military couples and families. We advance RQ3 to investigate the issue, which is important in light of recent calls to document the opportunities that accompany military life (e.g., Park, 2011) and to inform clinicians helping military families make sense of their deployment experiences (e.g., Bowling & Sherman, 2008).

RQ3: What positive outcomes for families, if any, do military couples report experiencing from deployment?

Advice

The goal of the emotional cycle of deployment model, like most scholarship in this domain, is to improve outcomes for military couples. In the spirit of the model, we seek to identify recommendations for reintegration from the cohort in the best position to offer advice: military couples who have been through the process themselves. Several investigations have asked at-home partners how they cope with deployment. For example, interviews with military wives reveal strategies such as expressing feelings artistically, receiving support from family and friends, relying on spirituality, using technology to communicate with the service member, making strategic decisions about how much information to disclose, avoiding thinking about the separation, creating a sense of normalcy, crafting an autonomous identity, and emphasizing positive emotions (Rossetto, 2013; Villagran, Canzona, & Ledford, 2013; Wheeler & Torres Stone, 2010). Moreover, military wives rate the most effective strategies for coping with deployment to be staying positive, praying, seeking support from people in similar situations, and exercising (Blank, Adams, Kittelson, Connors, & Padden, 2012). These studies illustrate the range of strategies available for navigating deployment.

The literature has less to say about strategies for coping with reintegration. Lapp et al. (2010) interviewed 18 National Guard and reserve spouses living in rural areas who found it helpful to participate in military-sponsored reunion workshops and to have patience with the adjustment process. We contend that soliciting advice from a larger cohort of both returning service members and at-home partners has the potential to advance theory and practice. With respect to theory, it would provide a starting point for understanding how military couples conceptualize effective communication during reintegration. With respect to practice, it would inform prevention and intervention services for military couples making the transition. Indeed, advice from individuals who have experienced the process themselves is especially credible to military families (Rossetto, 2015b). RQ4 examines the issue:

RQ4: What advice do military couples offer for reintegration following deployment?

Method

The data came from a larger project in which U.S. service members and their romantic partners completed three waves of online surveys during reunion following deployment (see Knobloch, Ebata, McGlaughlin, & Ogolsky, 2013; Knobloch, Ebata, McGlaughlin, & Theiss, 2013). Participants were recruited by circulating materials to military family life professionals and online forums tailored to military families. Military couples were eligible if (a) one or both partners had returned home from deployment during the past 30 days, (b) partners were custodial parents of one or more children, and (c) partners had separate email accounts.

Upon enrolling, individuals received an email with a login, a password, and a link to the Wave 1 questionnaire along with instructions to complete it in the next seven days. Twenty-four couples were eliminated for failing to complete the Wave 1 questionnaire before the 7-day deadline, and the remaining couples continued in the study by following the same procedures beginning on the 31st day (for Wave 2) and the 61st day (for Wave 3) after their enrollment date. Participants responded to open-ended items inquiring about changes to their communication in Wave 1, challenges of reunion in Wave 2, benefits of deployment in Wave 3, and advice for reintegration in Wave 3. We assigned the open-ended items to different waves to tap into circumstances proximal to people's experiences in each wave, avoid participant fatigue, and minimize nonresponse. Individuals received a $15 gift card for each questionnaire they completed, plus a bonus $15 gift card if they completed all three questionnaires.

Participants were 236 individuals ($N = 118$ heterosexual couples) living in 20 states. The sample was 84% Caucasian, 6% Hispanic/Latino, 4% African American, 3% Native American, 2% Asian, and 1% other. People's average age was 33.03 years (*range* = 21 to 63 years, *SD* = 6.84 years), and their

average relationship length was 9.61 years (SD = 5.67 years). Most couples were married (98%; engaged = 1%, seriously dating = 1%) and contained one returning service member and one at-home civilian partner (86%). Of the dual-career military couples (14%), one couple was composed of two service members returning home from deployment. Branch affiliation included the U.S. Army (57%), the Army National Guard (21%), the Air National Guard (13%), the Air Force (6%), and the Marines (3%).

The average length of deployment for the 119 returning service members (n = 115 men, 4 women) was 9.67 months (SD = 3.86 months). Their primary mission during deployment was combat (81%), peacekeeping (9%), training (4%), relief (1%), or other (5%). The deployment was the first for 32% of the returning service members; the other 68% had completed one or more prior deployments (two = 26%, three = 19%, four = 8%, five or more = 15%). On average, 16.78 days (SD = 8.74 days) had elapsed between homecoming and enrollment.

Results

We analyzed the free response data using content analytic procedures to inductively derive categories from participants' responses (as per Neuendorf, 2002). Our analysis proceeded in seven steps. First, the lead author and research assistants who were blind to the goals of the study made two passes through the comments to familiarize themselves with the data. In a second step, they engaged in open and axial coding to distinguish categories among the responses (as per Strauss & Corbin, 1998). *Open coding* is a process of labeling and classifying unique ideas that emerge from a careful reading of the data, and *axial coding* is a process of distinguishing connections among related ideas. This iterative process of open and axial coding revealed five changes to communication (RQ1), seven challenges of reunion (RQ2), five benefits of deployment (RQ3), and five pieces of advice for reintegration (RQ4).

A third step involved dividing the free response data into units suitable for coding by outside observers. Two other research assistants who were blind to the goals of the study unitized responses conveying multiple ideas into thematic units (as per Krippendorff, 2004). A *thematic unit* is a unit of analysis appropriate for open-ended data; it depicts a single idea and can vary in length from one clause to several sentences (Krippendorff, 2004). In a fourth step, we calculated Guetzkow's U to evaluate the reliability of the unitizing process across the dataset (Guetzkow, 1950). Guetzkow's U quantifies the difference in the number of thematic units formed by each judge, so lower values indicate more agreement.

A fifth step was evaluating whether the categories resonated with a group of outside observers. We trained teams of independent judges to code the thematic units into the mutually exclusive and exhaustive categories that arose from our content analysis. A sixth step involved calculating Krippendorff's (2004) α to evaluate the reliability of the coding across all of the thematic units. Advantages of Krippendorff's α include its computable sampling distribution, its flexibility for use with any number of judges, and its independence from the frequency distribution of thematic units across categories (Hayes & Krippendorff, 2007). We resolved disagreements by choosing the category endorsed by the majority of judges.

In a seventh step, the first three authors engaged in theoretical sorting to identify linkages in the data across the four open-ended items (Glaser, 1978, 1992). *Theoretical sorting* is a process designed to ascertain points of nexus among the categories and reassemble the data into overarching ideas. The theoretical sorting process distinguished four ways that the data converged and diverged across research questions.

Individuals wrote an average of 5.06 thematic units (*range* = 0 to 11 thematic units, *Mdn* = 5.00 thematic units, SD = 1.88 thematic units) across the four open-ended items. Next, we describe the results of our analyses along with sample quotations. Ellipses in brackets mark places where quotations were abridged for brevity.

Changes to communication (RQ1)

Individuals identified changes to communication (RQ1) by responding to an open-ended item in the Wave 1 questionnaire that asked: "In what ways, if any, did the communication in your romantic relationship change from your time together before the deployment to your time together now (since you have been reunited)?" A total of 232 participants (98.3%) wrote 267 thematic units in response to the item (Guetzkow's $U = .04$). Of those, 211 thematic units (79.0%) were substantive comments, and 56 thematic units (21.0%) reported that no changes to communication had occurred. Content analytic results indicated five content categories ($n = 208$ substantive thematic units, 98.6%) and a miscellaneous category ($n = 3$ substantive thematic units, 1.4%). The categories shared conceptual overlap because all of the comments focused on communication in some form, but three independent judges were able to achieve satisfactory coding reliability (Krippendorff's $\alpha = .81$).

Enhanced communication

Responses in the most frequently-mentioned category noted that partners communicated more positively, openly, and effectively due to the deployment ($n = 92$ thematic units, 43.6% of the substantive thematic units). Examples included (a) "The communication is better now that I'm home, less complaining and more being thankful for what we have." (deployed Air National Guard husband, 26 years old); (b) "We have become more open. We don't keep things from each other no matter how hard it might be for the other person to hear. It has helped with understanding each other's mental state." (at-home Army wife, 26 years old); and (c) "We're more confident, more positive in our communication." (deployed Army husband, 27 years old). Accordingly, some individuals reported that their communication dynamics improved across the deployment cycle.

Poorer communication

In contrast, some responses described less frequent communication, difficulties in conversation, and negatively-valenced interaction as a result of the deployment ($n = 42$ thematic units, 19.9% of the substantive thematic units). Samples included (a) "We argue a lot and get mad about the little things and we never did this [...] we can't talk calmly without arguing." (deployed Army husband, 25 years old); (b) "I don't talk as much and I am a little more abrupt." (deployed National Guard husband, 27 years old); and (c) "He seems easier to frustrate and/or anger. To be honest, I feel that I am easier to frustrate and anger as well." (at-home Army National Guard wife, 35 years old). These comments illustrated how deployment caused participants to communicate less frequently and less constructively.

More effortful communication

Other comments revealed that communication required more work, more time, and more concentration because of the deployment ($n = 28$ thematic units, 13.3% of the substantive thematic units). Some statements alluded to better communication and some alluded to worse communication, but the focus was on the increased exertion. Responses included (a) "I have tried much harder to listen to what she says, and be an active listener." (deployed Army husband, 31 years old); (b) "It takes time to redevelop the subtle cues and for him to listen to me and not treat me like a subordinate that has to follow his orders." (at-home Army National Guard wife, 37 years old); and (c) "It seems that it requires more work to maintain this communication." (deployed Army husband, 31 years old). These comments showcased how deployment made communicating more laborious and more effortful.

Stronger relationship

A fourth category indicated that people's communication changed in ways that helped them improve their relationship, foster closer ties, and strengthen commitment ($n = 25$ thematic units, 11.8% of the substantive thematic units). Examples included (a) "I think we're a lot closer now than we were before

the deployment." (deployed Army husband, 23 years old); (b) "We both realized that we took ourselves for granted. Now we really appreciate each other and express our love to each other more than ever." (at-home Air National Guard wife, 26 years old); and (c) "We value our time to talk together more now than before. We spend our time happy to be with each other and talking to each other." (deployed Army National Guard husband, 31 years old). In other words, comments in this category highlighted how changes in people's communication across the deployment cycle enhanced their relationship.

Family routines

Comments in a final category depicted how people's communication became more focused on managing daily activities and assigning household chores (n = 21 thematic units, 10.0% of the substantive thematic units). A recurring theme was conflict over who was in charge of the day-to-day routines. Samples included (a)

> "I struggle to tell my partner about my plans for the day because I am so used to taking care of everything on my own as far as the daily routines and responsibilities for the kids and me. […] He has asked me to try communicating with him about our daily and weekly plans." (at-home Army wife, 40 years old);

(b) "My wife has been the one running our home while I was gone and I have to give it time for me to get back into my role at home." (deployed Army husband, 41 years old); and (c) "Our middle son is handicapped so I have to spend a lot of time briefing my husband on his care." (at-home Army wife, 31 years old). These comments underscored the communication changes necessary to coordinate routines and distribute decision-making power.

Challenges of reunion (RQ2)

Participants reported on the challenges of reunion (RQ2) by completing an open-ended item in the Wave 2 questionnaire: "What have been the biggest challenges to readjusting as a family during reintegration?" A total of 223 participants (94.5%) wrote 320 thematic units in reply (Guetzkow's U = .01). Within the set, 308 thematic units (96.2%) were substantive comments, and 12 thematic units (3.8%) stated that reunion did not contain any challenges. Content analytic procedures identified seven content categories (n = 279 substantive thematic units, 90.6%) and a miscellaneous category (n = 29 substantive thematic units, 9.4%). Four judges coded the data with satisfactory reliability (Krippendorff's α = .81).

Parenting problems

The category containing the most thematic units focused on parenting, discipline, childcare, adapting to children's growth, and dealing with behavioral problems (n = 85 thematic units, 27.6% of the substantive thematic units). Examples included (a) "Helping our toddler feel secure that daddy is not leaving him for a long period of time." (at-home Air National Guard wife, 36 years old); (b) "Relearning how to handle situations with the kids. Children react differently than soldiers when being corrected or disciplined." (deployed Army husband, 34 years old); and (c) "We are still getting used to the new things that our son is doing now. When we last saw him he was a stationary baby who couldn't even roll over and now he crawls around all over the place." (deployed Army wife, 21 years old). These responses emphasized the difficulties military couples face renegotiating parenting responsibilities and helping children adapt to having two parents in residence.

Reintegrating into the family routine

Other comments described problems coordinating everyday activities and settling into a regular schedule (n = 53 thematic units, 17.2% of the substantive thematic units). Responses included (a) "As a family (kids and I) are used to having a set routine for school, shopping, evening, etc., and now, we are adjusting to adding Dad back into the routine." (at-home Army wife, 32 years old); (b) "My wife had got a really good routine down for her and our kids, so trying to integrate

myself into the schedule without […] making her feel like I am not coming back and changing things is a process." (deployed Air National Guard husband, 31 years old); and (c) "Making adjustments in our schedules as we try to work around each other. We own one car so we need to coordinate our needs together. Sometimes it is difficult and neither of us wants to bend." (deployed Army National Guard husband, 38 years old). These statements demonstrated the challenges of building a new normal for household activities and constructing daily routines that meet the needs of all family members.

Revising family roles and responsibilities

Whereas the previous category emphasized adjusting to a new schedule, this category accentuated revising responsibilities, modifying expectations, and reassigning chores (n = 48 thematic units, 15.6% of the substantive thematic units). Comments described the difficulty of redistributing control, power, and autonomy within the family. Samples included (a) "Some of the house rules changed while he was gone and getting him used to the new ones has been a challenge." (at-home Army National Guard wife, 35 years old); (b) "Learning our new roles in the household." (deployed Army National Guard husband, 33 years old); and (c) "I guess the biggest adjustment would have to be his role in the household. What his responsibilities are now that he is back and I'm not the only one running the household." (at-home Army wife, 34 years old). These comments illustrated how hard it is for military couples to sort out their new roles and achieve a mutually-satisfying balance of power.

Work and financial issues

Comments in a fourth category depicted stress tied to employment issues and money matters (n = 25 thematic units, 8.1% of the substantive thematic units). Participants reported financial hardships when the returning service member's salary went from combat duty pay to domestic duty pay or when either partner had difficulty with employment. Examples included (a) "Readjusting finances to allow for the lifestyle we want given the reduction in pay (taxes, losing combat pay, etc.)." (deployed Army husband, 32 years old); (b) "I worry about finances more than my husband which causes tension in the home. Upon returning to his duty station I have been unable to find employment which puts a strain at times on the relationship due to monetary hardships." (at-home Army wife, 34 years old); and (c) "My upcoming retirement and inability to locate a job." (deployed Air Force husband, 39 years old). The statements in this category revealed the struggles facing military couples when they lack sufficient income or employment opportunities.

Communication problems

A fifth category highlighted difficulties sharing information, expressing feelings, and communicating satisfactorily after homecoming (n = 25 thematic units, 8.1% of the substantive thematic units). Comments included (a) "He forgets we are family and talks to us like we are one of his soldiers at times." (at-home Army wife, 42 years old); (b) "Having to share and talk to another adult about decisions." (at-home Army National Guard wife, 36 years old); and (c) "Finding patience to get used to less-than-ideal communication is frustrating." (deployed Air National Guard husband, 31 years old). These statements, which echo participants' responses to RQ1 about poorer communication as a change due to deployment, emphasized the challenges of interacting effectively during reunion in particular.

Reconnecting ties

Responses categorized here spotlighted the problems military couples have making time to bond with each other in addition to friends and extended family members (n = 23 thematic units, 7.5% of the substantive thematic units). Examples included (a) "The biggest challenge has been having enough time, in quantity, together as a family." (at-home Army wife, 31 years old); (b) "There are

lots of people to catch up with: family and friends." (deployed Army National Guard boyfriend, 30 years old); and (c) "Getting time alone with my wife." (deployed Army husband, 40 years old). This category underscored how complicated it is for military couples to carve out enough time and energy to rebuild connections with loved ones.

Changes in personality and emotions

A seventh and final category referenced the trouble military couples face adjusting to changes in each other's demeanor, personality, and emotional tone ($n = 20$ thematic units, 6.5% of the substantive thematic units). Samples included (a) "As a couple, admitting that we are both different, be it for the better or just 'different.'" (at-home Army National Guard wife, 45 years old); (b) "Learning my wife all over again. Some things are the same but in many ways she is very different. Having a hard time with getting things right." (at-home Army National Guard husband, 39 years old); and (c) "My mood swings and anxiety issues. As hard as I try, I still catch myself displacing my anger onto my wife and children. My wife and children are still adjusting to the changes in me." (deployed Army National Guard husband, 35 years old). As illustrated by these comments, individuals can encounter difficulty adapting to shifts in their partner's personality and emotions.

Benefits of deployment (RQ3)

Individuals described benefits of deployment (RQ3) in conjunction with an open-ended item in the Wave 3 questionnaire that read: "Adjusting to deployment and reintegration can be difficult for families, but what, if anything, positive or constructive has come from your family's deployment experiences?" Findings indicated that 206 participants (87.3%) wrote 272 thematic units in response (Guetzkow's $U = .05$). Of those, 258 thematic units (94.9%) contained substantive content, and 14 thematic units (5.1%) stated that nothing positive came from their deployment experiences. Content analytic results revealed five content categories ($n = 239$ substantive thematic units, 92.6%) plus a miscellaneous category ($n = 19$ substantive thematic units, 7.4%). Four judges coded the data reliably (Krippendorff's $\alpha = .80$).

More appreciation

More than a third of the comments noted that deployment provided opportunities to recognize blessings ($n = 93$ thematic units, 36.0% of the substantive thematic units). Responses included (a) "Further appreciation for what we have and who he is." (at-home Army National Guard girlfriend, 31 years old); (b) "Him being gone for a year has made us realize how much we need each other." (at-home Army National Guard wife, 29 years old); and (c) "An appreciation for what really matters to me and a realization of what really matters to my wife." (deployed Air Force husband, 46 years old). These comments demonstrated how separation can help individuals rediscover their priorities and remember their core values.

Closer family ties

Other comments described how deployment sparked intimacy and strengthened family bonds ($n = 68$ thematic units, 26.3% of the substantive thematic units). Examples included (a) "It has brought us closer together." (deployed Army husband, 25 years old); (b) "The children and I achieved a sense of being a team during this deployment experience." (at-home Army wife, 39 years old); and (c) "We know that by experiencing [deployment], and lasting and enduring, that we are committed to each other." (deployed Army husband, 31 years old). A positive outcome of deployment was enhanced closeness in families.

Personal growth

A third set of comments depicted how deployment prompted family members to cultivate their skills, talents, and autonomy ($n = 42$ thematic units, 16.3% of the substantive thematic units). Samples included (a) "My spouse and children are much more self-confident and self-sufficient."

(deployed Army National Guard husband, 39 years old); (b) "Our children have gained a lot of independence and have been able to learn to be very helpful and responsible." (at-home Army wife, 29 years old); and (c) "We are stronger people mentally and physically." (deployed Army National Guard husband, 24 years old). Responses classified here illustrated how people grew as individuals across the deployment cycle.

Better communication

A fourth benefit of deployment was the ability to communicate more frequently and more effectively with family members upon reunion ($n = 25$ thematic units, 9.7% of the substantive thematic units). Comments included (a) "We have definitely improved our communication skills, both through the deployment and after." (at-home Army wife, 23 years old); (b) "We now talk things through instead of just staying mad at each other, and we don't leave an argument untended to." (at-home Army wife, 25 years old); and (c) "We have figured out ways to better communicate with one another." (deployed Army National Guard husband, 35 years old). Statements such as these triangulated the comments participants made for RQ1 about enhanced communication as a change due to deployment; they also showcased how participants can develop better speaking and listening skills as a constructive outcome.

Financial gain

Responses in a final category identified monetary benefits of deployment ($n = 11$ thematic units, 4.3% of the substantive thematic units). Examples included (a) "It helped us financially. We were able to buy a home for our family." (at-home Army National Guard wife, 31 years old); (b) "Our retirement account is awesome." (deployed Army National Guard husband, 37 years old); and (c) "Extra money received/saved during deployment has provided family opportunities." (deployed Air Force husband, 30 years old). These comments underscored the financial rewards that families can gain from deployment.

Advice for reintegration (RQ4)

Participants provided advice for reintegration (RQ4) as part of the following open-ended item in the Wave 3 questionnaire: "What advice would you give to other military families to help them with reintegration after deployment?" In response, 211 participants (89.4%) wrote 341 thematic units (Guetzkow's $U = .001$). A total of 334 thematic units (97.9%) provided substantive content, and seven thematic units (2.1%) commented that individuals had no advice to offer. Five content categories ($n = 311$ substantive thematic units, 93.1%) and one miscellaneous category ($n = 23$ substantive thematic units, 6.9%) emerged from the content analysis. Four judges achieved satisfactory coding reliability (Krippendorff's $\alpha = .82$).

Effective communication during deployment and reunion

Some comments stressed the value of talking openly and listening intently ($n = 102$ thematic units, 30.5% of the substantive thematic units). Samples included (a) "Communicate, communicate, and communicate. You aren't mind readers. Good, bad, or indifferent you have to understand how your spouse and children feel about everything." (deployed Army husband, 29 years old); (b) "Communicate as much as you can during the deployment so that when you are reunited it's not like talking to a stranger." (at-home Army wife, 33 years old); and (c) "Communicate to the best of your ability. Be open about as much as possible so you both understand what the other expects of you and what you can expect from them." (at-home Army wife, 28 years old). These statements revealed the importance people placed on candid communication about family issues.

Be patient

A second category involved taking a relaxed pace and not rushing the reintegration process ($n = 93$ thematic units, 27.8% of the substantive thematic units). Comments emphasized the importance of

giving family members time and space to adjust to reunion. Examples included (a) "Ease back in." (deployed Air National Guard husband, 36 years old);

> (b) "Give him time to get back into the fold of the family. It takes time for kids to get used to daddy being back. Allow him time to watch how the house has changed and how things are done, and not just jump in." (at-home Army National Guard wife, 36 years old);

and (c) "Take your time, don't rush anything, take it step by step. If he needs space in the beginning, give him the space. When he is ready he will come to you." (at-home Army wife, 32 years old). In sum, being patient and adjusting slowly were recommended as best practices during reunion.

Emphasize family

Other comments referenced the utility of prioritizing family relationships, including carving out quality time together and collaborating with each other ($n = 54$ thematic units, 16.2% of the substantive thematic units). Samples included (a) "Spend time together as family and as a couple […] create an ongoing project to do together, i.e. plant a garden, family study, or a weekly game night." (at-home Air National Guard wife, 37 years old); (b) "Make sure to leave time to spend together to get to know each other again. One-on-one time will help a lot." (deployed Army husband, 30 years old); and (c) "Fight for good family and spouse time, no matter what it takes. Don't fall victim to other priorities." (deployed Air National Guard husband, 42 years old). Such statements illustrated the value military couples saw in privileging family relationships during reunion.

Manage expectations

A fourth category advocated developing a realistic understanding of what the postdeployment transition will be like ($n = 33$ thematic units, 9.9% of the substantive thematic units). Responses included (a) "Discuss any expectations that either spouse may have of the other." (at-home Army National Guard wife, 31 years old); (b) "Don't come back expecting everything and everyone to be the same." (deployed Army husband, 41 years old); and (c) "No one is perfect, so do not expect it from yourself or the ones you love." (deployed Army National Guard, husband 42 years old). As demonstrated by these comments, participants endorsed having realistic beliefs about what to expect during reintegration.

Seek help

A fifth set of comments noted the importance of asking for assistance from outside sources, including military, professional, civilian, and personal channels ($n = 29$ thematic units, 8.7% of the substantive thematic units). Examples included (a) "Don't be afraid to ask for help." (at-home Army National Guard wife, 28 years old); (b) "Engage in family counseling. Make sure your children have a trusted adult to talk to outside of the home to address any feelings they have and may not be able to talk with you about. Make sure your soldier gets counseling even if it's just to 'check in' with someone." (at-home Army National Guard wife, 38 years old); and, (c) "If your partner isn't willing to go to counseling to figure out what is wrong and to help you out, go without them and help yourself. It will help the relationship out before it ruins it." (deployed Army National Guard husband, 31 years old). Participants encouraged military couples to pursue support from external venues for a smooth transition.

Convergence and divergence across research questions

Four issues of convergence and divergence emerged from the theoretical sorting process. First, the data accentuated communication as fundamental to the experiences of military couples during deployment and reunion. Beyond the responses to RQ1, which asked explicitly about communication, participants spontaneously nominated communication problems as a challenge of reunion (RQ2), better communication as a positive outcome of deployment (RQ3), and effective

communication as a key to reintegrating smoothly (RQ4). These findings characterize communication as a pervasive process for military couples during deployment and reunion.

Second, the coping behaviors that service members and at-home partners use to manage stress were prominent in the data. Allusions to problem-solving strategies were apparent in people's reports of changing communication about family routines from predeployment to postdeployment (RQ1); confronting parenting problems, work issues, and financial difficulties during reunion (RQ2); benefitting monetarily from deployment (RQ3); and seeking help as advice for reintegration (RQ4). Hints of emotion-regulating strategies were evident in people's descriptions of discovering changes in emotions during reunion (RQ2), having more appreciation for each other as a benefit of deployment (RQ3), and being patient as advice for reintegration (RQ4). References to relationship-enhancing strategies were visible in people's accounts of communication changes that fostered stronger relationships across the deployment cycle (RQ1), problems reconnecting ties during reunion (RQ2), closer family relationships as a benefit of deployment (RQ3), and emphasizing family as advice for reintegration (RQ4). Such findings imply that the coping strategies of military couples, although diverse, can be conceptualized in terms of problems, emotions, and relationships.

The data also pointed to relationship maintenance as a salient undertaking during separation and reunion. Service members and at-home partners reflected on the substantial effort required to communicate effectively after deployment compared to before deployment (RQ1) and the challenges of reconnecting during reunion (RQ2). They also recognized that their efforts to maintain closeness fostered greater appreciation and stronger bonds upon reunion (RQ3), and they advised other military couples to prioritize family ties during reintegration (RQ4). In sum, a higher-order idea concerned the costs and rewards of maintaining a long-distance romantic relationship during deployment and a proximal relationship upon reunion.

A final nexus point involved the paradoxes embedded in people's experiences of deployment and reunion. Gaining a greater appreciation for each other was an advantage of deployment (RQ3), but problems reorganizing family structures for parenting, routines, roles, and responsibilities were complaints during reunion (RQ2). Personal growth was celebrated as a benefit of deployment (RQ3), but changes to people's personalities and emotions posed difficulties at homecoming (RQ2). Financial gains were extolled as a benefit of deployment (RQ3), but financial shortfalls were a struggle of reunion (RQ2). Participants lauded open communication during deployment and reunion as an ideal (RQ4), but they also described ways that open communication led to conflict and made interaction more effortful (RQ1). A clear priority for participants was maintaining strong relationship ties (RQ1, RQ3, RQ4), but they also depicted significant stress in seeking to preserve those interpersonal bonds (RQ2). A striking aspect of our data was how people's experiences were fraught with contradiction.

Discussion

The emotional cycle of deployment model implies that *changes, challenges*, and *benefits* are key facets of the process (Pincus et al., 2001). Our goal was to shed light on how military couples experience these crucial yet understudied components of the deployment trajectory. To that end, we collected reports from 236 individuals about changes to their communication (RQ1), challenges of reunion (RQ2), and benefits of deployment (RQ3). To inform theorizing about what people view as effective communication upon reunion, as well as to maximize the practical value of our findings, we also asked participants to provide advice for other military couples during reintegration (RQ4). The following subsections discuss the ramifications of our results.

Changes to communication

When asked how their communication changed from predeployment to postdeployment (RQ1), our participants did not focus on discrete communication processes such as maintaining relationships (Maguire et al., 2013), negotiating tension (Sahlstein et al., 2009), and managing disclosures (Joseph &

Afifi, 2010) emphasized by research up to this point. Rather, participants privileged the tone and tenor of communication, with responses spanning the gamut of positive, neutral, and negative changes. Approximately 44% of the comments depicted more constructive communication or better relational dynamics, 21% stated that no communication changes had occurred, and 35% said that communication was more destructive, required more work, or was more focused on everyday routines.

The news value is that our findings for RQ1 lend both clarity and complexity to the literature. On one hand, the results add depth to the emotional cycle of deployment model (Pincus et al., 2001) by illuminating the kinds of communication changes military couples experience. On the other hand, the diversity of affect apparent in our data implies that a "one-size-fits-all" clinical approach is unsuitable for helping military couples navigate communication changes across the deployment cycle. Practitioners tout the benefits of tailoring treatment decisions based on characteristics of their clients (e.g., Norcross & Wampold, 2011); by extension, clinicians working with military populations could adapt their approach to the specific communication changes that military couples encounter.

Why did some military couples experience positive communication changes but others experienced no communication changes or negative communication changes? In this respect, our findings echo those of Sahlstein Parcell and Maguire (2014), who found that subgroups of Army wives reported differing arcs of increasing, decreasing, stable, dipped, or turbulent marital satisfaction from predeployment to postdeployment. Scholarship on long-distance civilian relationships suggests mechanisms that may account for these cohort differences, including people's ability to manage the opportunities and constraints of being together versus being apart (Sahlstein, 2004), their uncertainty about the future of their relationship (Maguire, 2007), and their idealistic beliefs about the relationship (Stafford & Merolla, 2007). Work on military couples nominates other explanations, including relationship distress before deployment (Cigrang et al., 2014), the effectiveness of relationship maintenance attempts during deployment (Maguire et al., 2013), and the danger posed by the service member's mission (Joseph & Afifi, 2010). The account offered by the emotional cycle of deployment model is that successful couples are the ones who are able to accomplish the tasks embedded in each stage of the process (Pincus et al., 2001), but more specificity is needed to formulate effective prevention and intervention programs. We nominate this issue as a vital direction for future research.

Challenges of reunion

Both the emotional cycle of deployment model (Pincus et al., 2001) and empirical findings (Faber et al., 2008; Hoge, Auchterlonie, & Milliken, 2006) underscore the postdeployment phase as a critical juncture in the well-being of military families. Notably, however, the challenges of reunion have received scant research attention (e.g., Bowling & Sherman, 2008; Sayers, 2011). Our data augment the literature by documenting the obstacles military couples encounter upon homecoming. Participants described the challenges of reunion (RQ2) in terms of difficulties with (a) parenting, (b) reintegrating into the family routine, (c) revising roles and responsibilities, (d) coping with work and financial issues, (e) communicating, (f) reconnecting ties, and (g) dealing with changes in personality and emotion.

The responses for RQ2 provide more nuanced insight into the stressors of the postdeployment transition than previously available. For example, more than a quarter of the substantive responses depicted problems between parents and children, which extends prior work hinting that reunion can be especially challenging for youth in the home (e.g., Mmari, Roche, Sudhinaraset, & Blum, 2009; Wilson, Chernichky, Wilkum, & Owlett, 2014). Two other challenges, re-acclimating to family routines and reorganizing family roles, bolster ambiguous loss frameworks that highlight how individuals can experience boundary ambiguity when they are unsure who is fulfilling key tasks (e.g., Faber et al., 2008; Wiens & Boss, 2006). Our data also advance ambiguous loss frameworks by providing insight into specific routines and roles that can spark difficulty upon reunion (e.g., preparing for school, coordinating transportation, dividing domestic responsibilities).

Interdependence between partners is a hallmark of close relationships (Kelley et al., 1983), so everyday tasks may be difficult to coordinate upon reunion because they require military couples to mesh previously independent routines. Accordingly, our findings for RQ2 may have clinical utility both for educating military couples about the everyday stressors that arise upon reunion and for helping them manage the transition more effectively.

Benefits of deployment

The emotional cycle of deployment model acknowledges that individuals and relationships may grow stronger across the trajectory (Pincus et al., 2001), but research on military families tends to privilege obstacles rather than opportunities (MacDermid Wadsworth, 2010; Park, 2011). A novel aspect of our study lies in assessing the positive consequences of deployment for families (RQ3). Notably, 36% of the substantive responses described people's greater appreciation for the rewarding aspects of their lives, and 26% mentioned more closeness within the family. Other comments referenced growing as a person, communicating more effectively, and earning extra money as benefits of deployment. Overall, 81% of our sample (192 of 236 participants) and 93% of those responding to the open-ended item (192 out of 206 participants) nominated at least one positive outcome of deployment.

These findings are important for research, theory, and application. With respect to research, our results supplement work demonstrating the benefits of long-distance relationships among civilian couples. Long-distance civilian couples report greater idealization, more romantic love, and better communication than geographically-proximal civilian couples (Stafford & Merolla, 2007); they also report learning skills such as trust, patience, and communication during their time apart (Mietzner & Lin, 2005). Our data for RQ3 provide an intriguing intersection between the literature on long-distance civilian relationships and the literature on military couples during deployment. They also hint that work on long-distance civilian couples could offer a launching pad for future studies of military couples separated by a tour of duty. With respect to theory, our findings supply missing pieces to the emotional cycle of deployment model by delineating five ways military couples can benefit from deployment. With respect to practice, our results contribute insights to clinicians seeking to help military couples. If military families who can find meaning in their deployment experiences fare better than those who cannot (e.g., Bowling & Sherman, 2008), then clinicians could use our data to help military couples pinpoint the benefits of deployment, privilege the positive rather than the negative, and construct meaning from the time apart.

Advice for reintegration

RQ4 sought to build on the pragmatic focus of the emotional cycle of deployment model by soliciting advice for military couples negotiating the transition from deployment to reunion. Results of the content analysis revealed five recommendations: (a) communicate to the best of your ability, (b) be patient with yourself and others, (c) emphasize and prioritize family relationships, (d) adopt realistic expectations of how the transition will unfold, and (e) do not be afraid to ask for help. To our knowledge, these findings represent the first formal investigation of best practices advocated by recently reunited military couples.

Research on advice, and supportive communication more generally, highlights how the content and sequencing of advice messages correspond with outcomes (MacGeorge, Feng, & Burleson, 2011). Although message characteristics play an important role in how individuals evaluate advice, other key factors include qualities of the support provider and features of the situation (MacGeorge, Guntzviller, Hanasono, & Feng, 2016). In fact, work shows that advice is better received when it comes from similar and credible others (Feng & MacGeorge, 2010). Our findings for RQ4, once translated into language employing empirically-validated guidelines for characteristics of advice messages (e.g., inclusion of mitigating facework, emotional support, problem analysis; MacGeorge et al., 2011), may be especially

useful because they come from individuals who have been through the deployment process. Two caveats are in order, however. First, our participants provided advice between 60 and 90 days after reunion, so their comments reflect their perspective several months into the transition. Second, our data do not speak to the efficacy of the recommendations beyond participants' endorsement, so the advice needs to be vetted before being built into educational curricula.

Convergence and divergence of themes

A central contribution of our study lies in identifying the linkages across research questions that have implications for theory and practice. Perhaps most obviously, our data emphasize the pervasive role of communication, including changes from predeployment to postdeployment (RQ1), communication difficulty as an obstacle during reunion (RQ2), better communication as a positive consequence of deployment (RQ3), and effective communication as advice for reintegration (RQ4). A reasonable inference is that scholars of communication are well positioned to help military couples maintain satisfying interpersonal ties during deployment and reunion. Although some training programs target communication as a pivotal process, including the BATTLEMIND postdeployment training program (Adler, Bliese, McGurk, Hoge, & Castro, 2009), FOCUS family resiliency training (Lester et al., 2011), and the Comprehensive Soldier Fitness Program (Cornum, Matthews, & Seligman, 2011), scholars from the field of communication have not been heavily involved in curricular development. Our findings hint that communication researchers could be major players in the quest for empirical insights to enhance the well-being of military families across the deployment cycle.

Our results also have ramifications for the literature on how individuals cope with stress. Scholars have delineated three types of coping, all of which surfaced in our data: (a) *problem-focused coping behaviors* seek to alleviate the stressor itself, (b) *emotion-focused coping behaviors* work to regulate affective responses to stress, and (c) *relationship-focused coping behaviors* strive to maintain positive interpersonal ties in the midst of stress (Coyne & Smith, 1991). Problem-focused coping behaviors involved managing instrumental challenges such as communication about family routines (RQ1), parenting, career, and financial issues (RQ2, RQ3), and procuring tangible aid (RQ4). Emotion-focused coping behaviors included attending to changes in emotions (RQ2), appreciating each other more (RQ3), and staying patient (RQ4). Relationship-focused coping behaviors encompassed communicating to enhance ties (RQ1), rekindling connections (RQ2), and valuing strong bonds (RQ3, RQ4). Our study dovetails with work conceptualizing coping with deployment in terms of pragmatic versus affective focus and individual versus relational orientation (Blank et al., 2012; Rossetto, 2013, 2015a). In light of recent findings that coping behaviors vary in effectiveness for dealing with the demands of military life (Blank et al., 2012; Dimiceli, Steinhardt, & Smith, 2010), we see utility in future work that explicitly considers coping in conjunction with the emotional cycle of deployment model to identify more and less helpful coping strategies across the trajectory.

A third organizing principle in our data involves relationship maintenance. Behaviors designed to maintain satisfying interpersonal bonds are pivotal to dyadic well-being (Ogolsky & Bowers, 2013). Couples interacting at a distance face particular complexities in relationship maintenance. For example, civilian couples report that geographic separation can both facilitate closeness (e.g., by creating a desire for quality time, by heightening excitement at being together) and hinder closeness (e.g., by creating pressure to make time together enjoyable, by heightening social network conflicts; Sahlstein, 2004). Similarly, our findings reveal ways that separation during deployment can both help couples maintain their connection with each other (e.g., by having a greater appreciation for each other and more durable family ties as benefits of deployment, RQ3; by prioritizing family as advice for reintegration, RQ4) and impede their efforts at relationship maintenance (e.g., by escalating the effort required to communicate across the deployment cycle, RQ1; by making it hard to reconnect during reunion, RQ2). Military wives separated by deployment note that relationship maintenance attempts can be thwarted by breakdowns in communication technology, differences in personal preferences, and unexpected consequences of intimacy-seeking behavior (Maguire et al., 2013;

Merolla, 2010). Our findings, coupled with this work, suggest that service members and at-home partners may need to tailor their relationship maintenance strategies to the unique opportunities and constraints of their situation (e.g., Merolla, 2010).

A fourth refrain in our data concerns the contradictions inherent in people's characterizations of deployment and reunion. For example, several of the same themes that participants celebrated as benefits to deployment also were flagged as challenges of reunion. Military couples appreciated each other more after the separation (RQ3) but had difficulty adjusting to each other's presence during reunion (RQ2). They applauded personal growth (RQ3) but were flummoxed by personality and mood changes (RQ2). They benefitted financially from deployment (RQ3) but lamented money problems upon reunion (RQ2). Other themes were extolled as advice for reintegration but also portrayed as sources of upheaval. Participants endorsed open communication (RQ4) but depicted tensions and burdens accompanying their openness (RQ1). They valued their relationship (RQ1, RQ3, RQ4) but recognized numerous frustrations with maintaining intimacy (RQ2). The oppositions in our data are reminiscent of the contradictions of openness (Caughlin, Mikucki-Enyart, Middleton, Stone, & Brown, 2011; Goldsmith & Domann-Scholz, 2013), the paradoxes of relationship maintenance (Maguire et al., 2013), and the dilemmas of offering help (Wilson, Gettings, Dorrance Hall, & Pastor, 2015) noted recently by scholars examining how people interact in stressful situations. They also underscore the complexity of the communication processes facing service members and at-home partners as they navigate deployment and reunion.

Viewed as a set, the concordances and discrepancies in our data suggest a key take home message for both military couples and civilian couples. Namely, the *work* of communication is central to fostering interpersonal closeness (e.g., Baxter, 1992), but the process of leaving and returning creates specialized demands for the work of communication at each juncture (e.g., Faber et al., 2008; Sahlstein Parcell & Maguire, 2014; Stafford, Merolla, & Castle, 2006). Participants voiced diverse manifestations of similar issues across their experiences of deployment and reunion (e.g., centrality of communication, demands of coping, rewards and costs of relational maintenance, and the pervasiveness of paradoxes). In this broad sense, our results validate the fundamental claim of the emotional cycle of deployment model that various phases present unique exigencies for military families (e.g., Pincus et al., 2001). The news value of our data lies in fleshing out the particulars of those exigencies in the words of military personnel and at-home partners.

Limitations and Directions for Future Research

The contributions of our study are tempered by limitations of our research design and sample. First, we did not investigate the predeployment stage of the emotional cycle of deployment model (Pincus et al., 2001), but it merits scrutiny given recent findings that it can be a time of uncertainty about the logistics of the deployment and the future of the relationship (Sahlstein et al., 2009). Second, our online survey method allowed us to solicit data from a fairly large and geographically dispersed cohort, but it prevented us from probing people's answers. Interview procedures such as the ones utilized by Karakurt et al. (2013) are needed to gain in-depth insight into the themes we identified. With respect to our sample, most military personnel were affiliated with the Army, the Army National Guard, and the Air National Guard, so our findings may not generalize to the experiences of individuals from other military branches. Moreover, 68% of returning service members in our sample had completed one or more prior deployments. If military families experience the deployment cycle differently during their first versus subsequent tours of duty (e.g., Barker & Berry, 2009; Kline et al., 2010), then our data may understate the issues military couples face during their first deployment. Future work should seek more heterogeneous samples in terms of military branch and number of deployments to ensure a comprehensive understanding of people's experiences.

Conclusion

We drew on the emotional cycle of deployment model (Pincus et al., 2001) to identify the experiences of military couples during deployment and reunion. Recently returned service members and at-home partners reported on communication changes from predeployment to postdeployment (RQ1), challenges during reunion (RQ2), positive outcomes of deployment (RQ3), and advice for reintegration (RQ4). Our results fill gaps in the current understanding of the trajectory of deployment via people's own words, illustrate how deployment can provide opportunities for growth, and suggest pathways for intervention. Overall, our findings emphasize the intricacy of the issues facing military couples and highlight the need for researchers and practitioners to attend to the positive and negative valence of those experiences.

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Relational Turbulence Among Military Couples After Reunion Following Deployment

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Abstract

Reintegration following deployment is a pivotal time for returning service members and at-home partners. We test logic derived from the relational turbulence model about depressive symptoms, relational uncertainty, and interference from a partner as predictors of people's appraisals of turmoil during the post-deployment transition. Participants were 118 military couples who completed an online questionnaire once per month for the first three months after homecoming. Multilevel models predicting people's appraisals of turmoil revealed (a) actor and partner effects of depressive symptoms, (b) actor effects of relational uncertainty, and (c) actor effects of interference from a partner that were apparent beyond people's appraisals of turmoil during the previous month. These findings advance both theory and practice.

Keywords: deployment, depressive symptoms, interference from a partner, reintegration, relational turbulence, relational uncertainty

Relational Turbulence Among Military Couples After Reunion Following Deployment

As the United States draws down combat operations in Afghanistan at the close of

President Barack Obama's term in office, thousands of men and women in the U.S. armed forces

are returning home for reunions with loved ones. After the ceremonies and celebrations are over,

military personnel and at-home partners face notable challenges adjusting to life at home

together. Key tasks during the transition include becoming reacquainted and renegotiating the

roles that may have changed during deployment (Faber, Willerton, Clymer, MacDermid, &

Weiss, 2008; Pincus, House, Christenson, & Adler, 2001). The process of reintegrating after

deployment can be complicated by mental health issues, questions about the future, and

disruptions to daily goals (e.g., Bowling & Sherman, 2008; Knobloch & Theiss, 2011a;

Sahlstein, Maguire, & Timmerman, 2009). Indeed, both theory and research identify depressive

symptoms, uncertainty about relationships, and interference in everyday routines as obstacles

that may hinder military couples from transitioning smoothly upon homecoming (Bowling &

Sherman, 2008; Knobloch & Theiss, 2014; Wiens & Boss, 2006).

The *relational turbulence model* shows promise for understanding how military couples

experience reunion following deployment (Knobloch & Theiss, 2011a; Theiss & Knobloch,

2014). The model proposes that times of transition are turbulent in romantic relationships

because people question their relationship and disrupt each other's goals (Solomon & Theiss,

2011; Solomon, Weber, & Steuber, 2010). Accordingly, the model attributes upheaval during

times of transition to relational uncertainty and interference from a partner (Knobloch, 2015;

Solomon & Theiss, 2011). The model also provides insight into the dyadic interplay between

partners by theorizing about how people's experience of turmoil during times of transition can be

a product of their own thoughts, emotions, and behaviors as well as their partner's thoughts,

emotions, and behaviors (Knobloch & Theiss, 2010; Theiss, Estlein, & Weber, 2013; Theiss, Knobloch, Checton, & Magsamen-Conrad, 2009). We build on this foundation to investigate the turmoil reported by returning service members and at-home partners during the post-deployment transition.

Our goals are threefold. First, we map people's experiences across the first three months after homecoming to provide descriptive information about the trajectory that is currently lacking in the literature. Second, we test theorizing about depressive symptoms, relational uncertainty, and interference from a partner as predictors of people's appraisals of turmoil over time. Third, we consider interpersonal dynamics within couples by examining people's appraisals of turmoil as a function of their own experiences (*actor effects*) and their partner's experiences (*partner effects*; Kenny, Kashy, & Cook, 2006). Accomplishing these goals will be valuable for both theory and practice by extending the relational turbulence model and by suggesting guidelines to help military couples transition effectively upon reunion following deployment.

Relational Turbulence After Deployment

The relational turbulence model defines a *transition* as a discontinuous phase in the progression of a relationship marked by changes in people's identities, roles, and surroundings (Knobloch, 2007; Solomon et al., 2010). A transition may spark dyadic restructuring and reorganizing (Solomon & Theiss, 2011), such as when service members and at-home partners reunited after deployment alter how they define their relationship and interact with each other (Sahlstein et al., 2009). The model defines *relational turbulence* as the upheaval people experience during times of change (Solomon & Theiss, 2011); it contends that individuals are cognitively, emotionally, and behaviorally reactive to those changing circumstances (Knobloch, 2015; Solomon & Theiss, 2011). People's *appraisals of turmoil* are their evaluation of the

relationship as chaotic, tumultuous, and stressful (Knobloch, 2007; McLaren, Solomon, & Priem, 2011). For example, military wives report experiencing a "roller coaster" (p. 55) of emotional highs and lows across the cycle of deployment (Davis, Ward, & Storm, 2011). At its core, the model proposes that individuals are likely to perceive their relationship as tumultuous during times of transition.

We focus on three constructs that may contribute to turmoil during the post-deployment transition (Knobloch & Theiss, 2011a). *Depressive symptoms* include (a) enduring feelings of sadness, emptiness, and hopelessness; (b) irritability and restlessness; (c) decreased energy and interest; (d) difficulty concentrating, sleeping, and eating; and (e) thoughts of suicide (American Psychiatric Association, 2013). Depressive symptoms can emerge during reunion following deployment not just for returning service members but for at-home partners as well (Gorman, Blow, Ames, & Reed, 2011). *Relational uncertainty* occurs when people are unsure about involvement in a relationship (Knobloch & Solomon, 1999). Relational uncertainty during the post-deployment transition can stem from questions about whether feelings have changed and how to rekindle bonds (Faber et al., 2008; Knobloch & Theiss, 2012; Wiens & Boss, 2006). *Interference from a partner* exists when individuals disrupt each other's routines (Knobloch & Solomon, 2004). Upon reunion following deployment, interference from a partner can arise as returning service members and at-home partners recalibrate their daily schedules, reallocate their power, and redistribute their household responsibilities (Bowling & Sherman, 2008; Knobloch & Theiss, 2012; Wood, Scarville, & Gravino, 1995).

We elaborate on our theorizing about depressive symptoms, relational uncertainty, and interference from a partner during reunion after deployment in the following subsections, but first we note a gap in the literature about how the post-deployment transition unfolds over time.

Scholars have speculated that returning service members and at-home partners may experience

an initial honeymoon period followed by a delayed onset of distress (e.g., Milliken,

Auchterlonie, & Hoge, 2007; Pincus et al., 2001), but we are not aware of any longitudinal

research that has mapped the interpersonal dynamics of military couples over time. Such data are

required to pinpoint when support services would be most useful to military couples (Sahlstein

Parcell & Maguire, 2014). A first research question examines the issue:

RQ1: What is the trajectory of depressive symptoms, relational uncertainty, interference

from a partner, and appraisals of turmoil across the first three months after reunion

following deployment?

Depressive Symptoms as a Predictor

Depressive symptoms, although not a core construct in the relational turbulence model,

have particular applicability to the transition from deployment to reunion (e.g., Hoge et al.,

2004). Both returning service members and at-home partners are at risk for depressive symptoms

during the post-deployment transition (Gorman et al., 2011), and in turn, are likely to experience

their relationship as turbulent. Indeed, extensive theory and research suggest that depressive

symptoms can disrupt people's ability to maintain rewarding interpersonal ties (Uebelacker &

Whisman, 2006; Whisman, 2001). Among civilian couples, individuals with depressive

symptoms are less satisfied with their relationship (Kouros, Papp, & Cummings, 2008) and

communicate less effectively (Rehman, Gollan, & Mortimer, 2008). Among military couples

navigating reunion following deployment, at-home partners experiencing depressive symptoms

are less satisfied with their relationship (Renshaw, Rodrigues, & Jones, 2008), and when

returning service members are grappling with depressive symptoms, both they and their partners

report less satisfaction with their relationship (Knobloch & Theiss, 2011a; Nelson Goff, Crow,

Reisbig, & Hamilton, 2007; Renshaw et al., 2008). A first prediction follows:

H1: Depressive symptoms are positively associated with people's appraisals of turmoil

across the first three months after reunion following deployment.

Relational Uncertainty as a Predictor

Relational uncertainty indexes the questions people have about involvement in a

relationship (Knobloch, 2010; Knobloch & Solomon, 1999). It is an umbrella construct that

encompasses people's uncertainties about their own participation in the relationship (*self

uncertainty*), their partner's participation in the relationship (*partner uncertainty*), and the nature

of the relationship itself (*relationship uncertainty*). Whereas the three sources of relational

uncertainty are relevant across interpersonal domains, military couples also face questions about

involvement tailored to the post-deployment transition in particular (e.g., Faber et al., 2008;

Vormbrock, 1993; Wiens & Boss, 2006). Returning service members and at-home partners

report *reunion uncertainty* regarding issues such as how to preserve commitment, reintegrate

their everyday lives, handle household responsibilities, adjust to personality changes, navigate

sexual intimacy, monitor and safeguard the health of the returning service member, and

communicate successfully (Knobloch & Theiss, 2012, 2014).

The relational turbulence model proposes that individuals grappling with questions about

involvement are likely to experience turmoil in their relationship (Solomon & Theiss, 2011). By

definition, relational uncertainty compromises people's ability to understand the nature of their

relationship, which escalates the difficulty of interacting with a partner (Knobloch & Satterlee,

2009). Tests of the model's logic among civilians reveal that relational uncertainty is positively

associated with people's appraisals of turmoil in some studies (Knobloch & Theiss, 2010) but

not other studies (Knobloch, 2007), and in some cohorts but not other cohorts in the same study

(McLaren et al., 2011; Theiss & Nagy, 2012). With respect to the military context, a recent study

revealed a positive cross-sectional association between relational uncertainty and appraisals of

turmoil reported by individuals recently reunited after deployment (Theiss & Knobloch, 2014).

The mixed findings point to the need for additional evaluation of this central premise of the

model. Accordingly, we propose H2 to facilitate a dyadic and longitudinal evaluation during the

post-deployment transition:

    H2: Relational uncertainty is positively associated with people's appraisals of turmoil across

          the first three months after reunion following deployment.

Interference from a Partner as a Predictor

      According to the relational turbulence model, times of transition generate occasions for

partners to disturb each other's everyday goals, routines, and patterns (Solomon & Theiss, 2011).

Interference from a partner occurs when individuals inhibit their partner's ability to achieve a

goal (Berscheid, 1983; Knobloch & Solomon, 2004; Solomon & Knobloch, 2001). Interference

from a partner can emerge whenever interpersonal circumstances change, but reunion following

deployment furnishes many context-specific possibilities for interference. Service members have

grown accustomed to a mission-focused lifestyle steeped in military culture, and at-home

partners have acclimated to a domestic-focused lifestyle with considerable autonomy and

decision-making power (Pincus et al., 2001). Military couples working to integrate the two

modes of existence are likely to impede each other's daily routines (e.g., Faber et al. 2008).

Indeed, returning service members and at-home partners report *reintegration interference from a*

partner tied to everyday schedules, household duties, control struggles, neediness, child rearing,

personality shifts, social pastimes, and insufficient time together (Knobloch & Theiss, 2012, 2014).

The model proposes that interference from a partner is emotionally upsetting for individuals (Berscheid, 1983), thereby provoking relational turbulence (Knobloch, Miller, & Carpenter, 2007; Solomon & Knobloch, 2004). Initial evidence both inside and outside the military context is consistent with the model's premise. Both cross-sectional data (Knobloch, 2007; McLaren et al., 2011; Theiss & Nagy, 2012) and longitudinal data (Knobloch & Theiss, 2010) reveal a positive association between people's reports of interference from a partner and their appraisals of turmoil within dating relationships. One recent cross-sectional study in the military context showed that interference from a partner was a positive predictor of people's appraisals of turmoil during the post-deployment transition (Theiss & Knobloch, 2014). We offer H3 to guide a more comprehensive test using dyadic and longitudinal data:

   H3: Interference from a partner is positively associated with people's appraisals of turmoil
        across the first three months after reunion following deployment.

Actor and Partner Effects

Whereas the actor effects predicted in our first three hypotheses are prerequisites to evaluating the model's reasoning, a key extension of the model involves examining partner effects alongside actor effects. Are an individual's appraisals of turmoil predicted by his or her partner's experience of depressive symptoms, questions, and/or hindrance? Our theorizing, coupled with an actor-partner interdependence approach (Kenny et al., 2006), implies that partners encountering depressive symptoms, relational uncertainty, and interference may behave in ways that generate relational turbulence for actors. For example, people with depressive symptoms are prone to excessively asking their partner for reassurance (Van Orden & Joiner,

2006). Individuals experiencing relational uncertainty are reluctant to talk with their partner about sensitive issues (Knobloch & Theiss, 2011b) and judge their partner's irritating behavior negatively (Theiss & Knobloch, 2009). Similarly, people experiencing interference from a partner are susceptible to feeling negative emotion (Berscheid, 1983; Knobloch et al., 2007) and being hurt by their partner's behavior (Theiss et al., 2009). Because depressive symptoms, relational uncertainty, and interference from a partner correspond with a host of aversive cognitions, emotions, and behaviors (Solomon & Theiss, 2011), individuals navigating the post-deployment transition may view their relationship as turbulent when their partner is experiencing depressive symptoms, questions, and disruptions.

To our knowledge, no studies have examined partner effects of depressive symptoms on appraisals of turmoil, and only one study has evaluated partner effects of relational uncertainty and interference from a partner on appraisals of turmoil. Knobloch and Theiss (2010) found mixed support for a dyadic extension of the relational turbulence model in their study of dating couples: Their results showed partner effects of relational uncertainty but not interference from a partner. We submit research questions to consider within-couple dynamics among returning service members and at-home partners during the post-deployment transition:

RQ2: Are a partner's depressive symptoms positively associated with an actor's appraisals of turmoil across the first three months after reunion following deployment?

RQ3: Is a partner's relational uncertainty positively associated with an actor's appraisals of turmoil across the first three months after reunion following deployment?

RQ4: Is a partner's interference from an actor positively associated with an actor's appraisals of turmoil across the first three months after reunion following deployment?

Method

Data for this study came from a three-wave online survey of U.S. service members and their romantic partners.[1] We employed two strategies to recruit participants: (a) posting advertisements to online forums, message boards, and Facebook pages tailored to military couples; and (b) emailing information to family readiness officers, chaplains, and military personnel in all 50 states. Couples were eligible for the study if they met three criteria: (a) one or both partners had returned home from deployment in the past 30 days, (b) each partner had his or her own email account, and (c) one or both partners were custodial parents.[2]

Procedures

When couples enrolled in the study, we emailed each partner a link to the Wave 1 questionnaire, a unique login, and a unique password. We also sent reminder emails to individuals who had not completed the Wave 1 questionnaire by the fourth day and the sixth day after enrollment. Twenty-four couples were eliminated from the study for failing to complete the Wave 1 questionnaire by the seventh day. We collected data from the continuing couples for Wave 2 and Wave 3 by repeating the procedures beginning on the 31st day and the 61st day after their enrollment. Individuals received a $15 gift card from a national retailer for each wave of data they submitted, and those who completed all three waves received a bonus $15 gift card.

Participants

The sample included 236 individuals who were part of 118 heterosexual romantic couples (n = 118 men, 118 women). Couples were residents of 20 states who ranged in age from 21 to 63 years old (M = 33.03 years, SD = 6.84 years). They were Caucasian (84%), Hispanic (6%), African American (4%), Native American (3%), Asian (2%), and other (1%). Most couples were married (98%; seriously dating = 1%, engaged to be married = 1%), and their relationships

averaged 9.61 years in duration ($SD = 5.67$ years). Dual-career military couples represented 14% of the sample, but only one dual-deployed couple participated.

The military personnel were serving in the U.S. Army (57%), Army National Guard (21%), Air National Guard (13%), Air Force (6%), and Marines (3%). The average length of deployment for the 119 returning service members ($n = 115$ men, 4 women) was 9.67 months ($SD = 3.86$ months). They characterized their primary mission during deployment as combat (81%), peacekeeping (9%), training (4%), relief (1%), or other (5%). Whereas 32% were returning from their first tour of duty, others had completed two (26%), three (19%), four (8%), or five or more (15%) deployments. An average of 16.78 days ($SD = 8.74$ days) elapsed between when couples were reunited and when they began the study.

Measures

We collected demographic measures at Wave 1 and all other measures at Wave 1, Wave 2, and Wave 3. We conducted confirmatory factor analyses (CFA) on all of the multi-item scales using the Wave 1 data, and then we computed the measures as the average of participants' responses to the unidimensional items.[3] Table 1 reports the descriptive statistics for each wave.

Depressive symptoms. We assessed people's symptoms of depression using the 3-item version of the Mental Health Inventory (MHI-d; Berwick et al., 1991). The scale is valuable for its brevity, reliability, and ability to detect depressive symptoms (Cuijpers, Smits, Donker, ten Have, & de Graff, 2009; Yamazaki, Fukuhara, & Green, 2005). Individuals recorded their response (1 = *none of the time*, 6 = *all of the time*) to items introduced by the stem "How often in the past 30 days have you …?" (a) felt downhearted and blue, (b) been a happy person (reverse-scored), and (c) felt so down in the dumps that nothing could cheer you up.

Relational uncertainty. We measured self, partner, and relationship uncertainty with an abbreviated version of Knobloch and Solomon's (1999) scale. Participants responded to items beginning with the prompt "How certain are you about…?" (1 = *completely or almost completely uncertain*, 6 = *completely or almost completely certain*). Responses were reversed so that larger values indicate more relational uncertainty.

Items for *self uncertainty* included: (a) how you feel about your relationship, (b) your view of your relationship, (c) how important your relationship is to you, and (d) your goals for the future of your relationship. Items gauging *partner uncertainty* included: (a) how your partner feels about your relationship, (b) your partner's view of your relationship, (c) how important your relationship is to your partner, and (d) your partner's goals for the future of your relationship. Items assessing *relationship uncertainty* included: (a) how you can or cannot behave around your partner, (b) the current status of your relationship, (c) the definition of your relationship, and (d) the future of your relationship. Consistent with prior conceptual explications and measurement analyses (Knobloch, 2010), CFA results indicated that the three measures did not form a unidimensional factor at the first-order or second-order level, so we treated them as separate variables (following Knobloch & Theiss, 2010; Theiss et al., 2013).

To measure *reunion uncertainty*, we wrote items with the same stem and response scale to assess the questions reported by recently reunited service members and at-home partners (Knobloch & Theiss, 2012). CFA findings documented seven unidimensional items: (a) how to readjust to being together, (b) how to redistribute household chores, (c) how to get to know each other again, (d) how to renegotiate parenting roles, (e) how to be sexually intimate with each other after the time apart, (f) how to assess your partner's health and well-being, and (g) how to communicate with your partner.

Interference from a partner. We operationalized *interference from a partner* using Knobloch and Solomon's (2004) measure, with one additional item assessing hindrance in parenting. Participants indicated their agreement (1 = *strongly disagree*, 6 = *strongly agree*) with items that began with the stem "My romantic partner…" (a) interferes with the plans I make, (b) causes me to waste time, (c) interferes with my career goals, (d) interferes with the things I need to do each day, (e) makes it harder for me to schedule my activities, (f) interferes with whether I achieve the everyday goals I set for myself (e.g., goals for exercise, diet, entertainment), and (g) makes it harder for me to be a good parent.

We wrote items to evaluate *reintegration interference from a partner* based on the eight themes Knobloch and Theiss (2012) documented via an open-ended item about the ways returning service members and at-home partners make it harder for each other to complete their everyday activities upon reunion. The items were introduced by the stem "My romantic partner …" (a) disrupts the everyday routines I had established during deployment, (b) makes it harder for me to complete household chores, (c) interferes with my ability to make my own decisions, (d) makes me feel smothered, (e) disrupts my ability to parent effectively, (f) has become a different person since deployment, (g) disrupts my social life with family and friends, and (h) makes me wish we had more time to spend together (1 = *strongly disagree*, 6 = *strongly agree*).

Appraisals of turmoil. We measured appraisals of turmoil with five items from Knobloch's (2007) scale. Participants rated their relationship on descriptors completing the prompt "At the present time, this relationship is…" (a) chaotic, (b) turbulent, (c) frenzied, (d) overwhelming, and (e) stressful (1 = *strongly disagree*, 6 = *strongly agree*).

Results

Preliminary Analyses

As a prerequisite to our substantive analyses, we evaluated differences between returning service members ($n = 117$) versus at-home partners ($n = 117$; excluding the dual-deployed couple) and between men ($n = 118$) versus women ($n = 118$). The results of paired samples t-tests on the Wave 1 data demonstrated differences for both depressive symptoms and reintegration interference from a partner. At-home partners ($M = 2.13$, $SD = 0.98$) reported more depressive symptoms than returning service members ($M = 1.91$, $SD = 0.86$), $t (116) = 2.15$, $p = .034$. At-home partners ($M = 2.33$, $SD = 0.85$) reported more reintegration interference from a partner than returning service members ($M = 2.10$, $SD = 0.65$), $t (116) = 3.04$, $p = .003$, and women ($M = 2.32$, $SD = 0.85$) reported more reintegration interference from a partner than men ($M = 2.09$, $SD = 0.65$), $t (117) = 2.96$, $p = .004$.[4]

We then computed Wave 1 bivariate correlations among men, among women, and within couples. Positive associations were apparent among the majority of the independent and dependent variables (see Table 2). We also calculated Wave 1 bivariate correlations between three time-based variables (relationship length, deployment length, and number of days since reunion) and the substantive variables. The three variables were not correlated with any of the independent or dependent variables for returning service members. For at-home partners, the number of days since reunion was positively correlated with partner uncertainty ($r = .22$, $p = .019$), interference from a partner ($r = .21$, $p = .026$), and reintegration interference from a partner ($r = .21$, $p = .024$). Accordingly, we covaried the number of days since reunion in our substantive analyses.

Mapping the Trajectory of Reunion

As a first step in evaluating the trajectory of people's experiences during reintegration (RQ1), we plotted the means for our independent and dependent variables across the three waves of data (see Figure 1). Participants in our sample were functioning very well on average: They reported quite low levels of depressive symptoms, relational uncertainty, interference from a partner, and appraisals of turmoil. Notably, participants reported more upheaval via the reunion-specific measures (reunion uncertainty and reintegration interference from a partner) than the global measures (relational uncertainty and interference from a partner).

As a second step, we computed repeated-measures ANOVAs separately for men and women with planned within-subjects contrasts comparing adjacent waves. For both men and women, increases from Wave 1 to Wave 2 were apparent for self uncertainty, interference from a partner, and reintegration interference from a partner, $F (1, 111) = 4.46$ to 19.33, all $p < .05$. Three similar findings emerged for men or women: (a) men's partner uncertainty increased from Wave 1 to Wave 2, $F (1, 111) = 4.28$, $p = .041$; (b) women's relationship uncertainty and reunion uncertainty increased from Wave 1 to Wave 2, $F (1, 111) = 5.11$ to 5.37, both $p < .05$; and (c) women's reunion uncertainty and reintegration interference from a partner decreased from Wave 2 to Wave 3, $F (1, 111) = 8.72$ to 14.85, both $p < .01$. These findings for RQ1 imply an initial upturn in relational uncertainty and interference from a partner across the first weeks of reintegration followed by a leveling off or a decline afterwards.

Evaluating Predictors of Appraisals of Turmoil

We employed multilevel modeling for our remaining analyses to address the statistical dependence in our dyadic and longitudinal data. Multilevel modeling was advantageous for evaluating how change in an actor's and partner's depressive symptoms (H1, RQ2), relational

uncertainty (H2, RQ3), and interference from a partner (H3, RQ4) predicted change in the

actor's appraisals of turmoil. We began by inspecting an unconditional model with restricted

maximum likelihood for the method of estimation and heterogeneous compound symmetry for

the residual structure (Kenny et al., 2006). Results revealed more between-person variance

(70%) than within-person variance (30%) in appraisals of turmoil across waves.

We then evaluated actor-partner interdependence models following guidelines specified

by Kenny et al. (2006, pp. 174-177, pp. 342-359). The models used restricted maximum

likelihood estimation and heterogeneous compound symmetry for the residuals. We

distinguished partners by biological sex (men = - 1, women = 1), evaluated biological sex as a

moderator, and grand-mean centered all of the continuous covariates and independent variables.

Two time-based covariates were included at Level 1: (a) the number of days since reunion, and

(b) people's lagged reports of appraisals of turmoil during the previous wave (t - 1) to address

the autocorrelation of the residuals. In addition, four sets of independent variables were included

at Level 1: (a) depressive symptoms of actors and partners (H1, RQ2), (b) relational uncertainty

of actors and partners (H2, RQ3), (c) interference from a partner of actors and partners (H3,

RQ4), and (d) interaction terms calculated as biological sex multiplied by the independent

variables. The strong correlation among people's appraisals of turmoil from wave to wave

prevented any random slopes or intercepts from being estimated.

The slopes for the independent variables test the hypotheses and research questions by

evaluating whether the predictors account for variance in an actor's appraisals of turmoil after

controlling for the actor's appraisals of turmoil in the previous wave. To probe any main effects

that were moderated by biological sex, we employed a two-intercept approach to compute the

intercepts and slopes separately for men and women using procedures recommended by Kenny

et al. (2006, pp. 347-348). We built these models by (a) grand-mean centering the continuous

predictors, (b) multiplying each time-based covariate and independent variable by two dummy-

coded terms distinguishing men versus women, (c) setting the Level 1 error variance to zero, (d)

setting the estimation strategy to restricted maximum likelihood, (e) setting the residual structure

to heterogeneous compound symmetry, and (f) estimating each person's intercept at Level 2.

Relational uncertainty and interference from a partner as predictors. We designed a

first group of models by evaluating the measures of relational uncertainty and interference from a

partner that are applicable to romantic relationships generally. First, we built three models

containing (a) depressive symptoms; (b) self, partner, or relationship uncertainty; and (c)

interference from a partner. Five predictors emerged across all models: (a) an actor's depressive

symptoms ($\beta = .14$ to $.18$, all $p < .001$), (b) an actor's relational uncertainty ($\beta = .24$ to $.43$, all p

$< .001$), (c) an actor's interference from a partner ($\beta = .35$ to $.41$, all $p < .001$), (d) a partner's

depressive symptoms ($\beta = .11$ to $.13$, all $p < .002$), and (e) a partner's interference from a partner

($\beta = .10$ to $.11$, all $p < .05$). These findings are consistent with our hypotheses about actor effects

of depressive symptoms (H1), relational uncertainty (H2), and interference from a partner (H3)

predicting an actor's appraisals of turmoil. They also suggest an affirmative answer to our

research questions about partner effects of depressive symptoms (RQ2) and interference from a

partner (RQ4) predicting an actor's appraisals of turmoil.

In a second step, we crafted a single model containing depressive symptoms, the three

sources of relational uncertainty, and interference from a partner (see Table 3). The variables that

continued to positively predict an actor's appraisals of turmoil beyond his or her appraisals of

turmoil in the previous wave were (a) an actor's depressive symptoms (H1), (b) an actor's self

and relationship uncertainty (H2), (c) an actor's interference from a partner (H3), (d) a partner's

depressive symptoms (RQ2), and (e) a partner's interference from a partner (RQ4).

These main effects were qualified by four interactions involving an actor's biological sex.

Probing these interactions revealed that men's appraisals of turmoil ($\beta = .40$, $p < .001$) were

more positively associated from wave to wave than women's appraisals of turmoil ($\beta = .22$, $p <$

.001). Whereas an actor's self uncertainty was a positive predictor of appraisals of turmoil for

women ($\beta = .44$, $p < .001$) but not men ($\beta = .07$, ns), an actor's relationship uncertainty was a

positive predictor for men ($\beta = .35$, $p = .002$) but not women ($\beta = .07$, ns). Finally, men's reports

of women's interference in men's everyday activities were positively associated with women's

appraisals of turmoil ($\beta = .24$, $p = .008$), but women's reports of men's interference in women's

activities did not predict men's appraisals of turmoil ($\beta = - .03$, ns).

Reunion uncertainty and reintegration interference from a partner as predictors. A

second model considered the predictors tailored to homecoming following deployment: reunion

uncertainty and reintegration interference from a partner. As hypothesized, findings indicated

actor effects of depressive symptoms (H1), reunion uncertainty (H2), and reintegration

interference from a partner (H3) beyond the variance explained by an actor's appraisals of

turmoil in the previous wave (see Table 4). In addition, a partner's depressive symptoms shared a

positive association with an actor's appraisals of turmoil (RQ2), but partner effects were not

apparent for reunion uncertainty (RQ3) or reintegration interference from a partner (RQ4). The

main effects were not qualified by any interactions with an actor's biological sex.

Subsidiary Analyses

Because 114 of the 118 couples in our sample were comprised of a male returning service

member and a female at-home partner (97%), we also repeated the multilevel modeling analyses

using the smaller sample, differentiating partners by deployment status (deployed = -1, at-home partner = 1), and examining deployment status as a moderator. Results were identical for the hypotheses and research questions with two exceptions involving interaction effects. First, the interaction between an actor's relationship uncertainty and deployment status qualifying H2 did not emerge. Second, a partner's reintegration interference from a partner interacted with deployment status for RQ4 such that returning service members' reports of at-home partners' reintegration interference in returning service members' everyday activities were positively correlated with at-home partners' appraisals of turmoil (β = .18, p = .045), but at-home partners' reports of returning service members' reintegration interference in at-home partners' activities did not predict returning service members' appraisals of turmoil (β = - .06, ns). With these two exceptions, our results distinguishing men versus women also characterize male returning service members versus female at-home partners.

Discussion

Given the personal significance of the post-deployment transition for returning service members and at-home partners (Bowling & Sherman, 2008; Pincus et al., 2001), along with its suitability for building theory about relationship dynamics during times of transition more generally (Knobloch & Theiss, 2014; Sahlstein Parcell & Maguire, 2014), we investigated people's appraisals of turmoil across the first three months after homecoming by collecting online survey data from 118 military couples. Our goals were to (a) map the trajectory of the post-deployment transition; (b) evaluate the predictive capacity of depressive symptoms, relational uncertainty, and interference from a partner; and (c) investigate within-couple spillover via partner effects. Our results have both conceptual and applied ramifications.

Implications for Theory and Practice

As a complement to retrospective research charting turning points during deployment (Sahlstein Parcell & Maguire, 2014), we collected people's prospective reports of interpersonal dynamics during reunion. Our descriptive results revealed relatively low distress overall but nuances among markers of upheaval (see Figure 1). Whereas people's depressive symptoms and appraisals of turmoil remained relatively stable, their relational uncertainty and interference from a partner evidenced an uptick from Wave 1 to Wave 2. From there, the reunion-specific measures of relational uncertainty and interference from a partner declined for women from Wave 2 to Wave 3, but the global measures of relational uncertainty and interference from a partner remained steady for both men and women. These findings corroborate theoretical speculation that military couples experience a honeymoon phase during the first weeks of reintegration that gives way to upheaval over time (e.g., Milliken et al., 2007; Pincus et al., 2001). They also imply that targeted interventions may be more relevant to military couples if offered four to eight weeks after homecoming rather than immediately upon reunion.

We theorized that returning service members and at-home partners experiencing depressive symptoms during the post-deployment transition are likely to experience their relationship as tumultuous. In all models, depressive symptoms exerted both actor effects (H1) and partner effects (RQ2) on people's appraisals of turmoil after covarying their reports of turmoil during the previous month. These dyadic and longitudinal findings bolster and extend previous work in three ways. First, on a basic level, our results spotlight the robust connection between people's mental health and their relational health (e.g., Uebelacker & Whisman, 2006). Second, they depict rippling effects of depression such that one person's symptoms have consequences for the other person's relationship climate (e.g., Finkbeiner, Epstein, & Falconier,

2013). Finally, with respect to the relational turbulence model, our findings show that considering people's mental health alongside their relational uncertainty and interference from a partner complements (but does not subsume) the model's emphasis on relationship dynamics during times of transition (e.g., Knobloch & Theiss, 2011a).

We deduced from the relational turbulence model that reuniting military couples who are unsure about their relationship are likely to report turmoil. Actor effects of relational uncertainty emerged in all models (H2), particularly self uncertainty for women and relationship uncertainty for men, but partner effects were not apparent (RQ3). The actor effects of relational uncertainty fill a key gap in the model: Whereas cross-sectional results have been mixed about the link between relational uncertainty and appraisals of turmoil (cf. Knobloch, 2007; McLaren et al., 2011; Theiss & Nagy, 2012), our longitudinal findings supplement a prior over-time study supporting the model's logic among dating couples (Knobloch & Theiss, 2010). At a broader level, our results suggest subtle intersections with work on ambiguous loss in military families. Wiens and Boss (2006) theorized that deployment is replete with ambiguous tension between the service member's presence versus absence in the family ("there but not there"), which can lead to boundary ambiguity about roles for family members. Whereas interview studies illustrate the nuanced ways military couples experience ambiguous loss across the deployment cycle (Faber et al., 2008; Huebner, Mancini, Wilcox, Grass, & Grass, 2007), our quantitative findings reveal that military couples encounter questions about the nature of the relationship and the process of reintegrating their lives upon reunion. Considered side by side, the literatures on relational uncertainty and ambiguous loss showcase the multilayered questions embedded in the trajectory of deployment and reunion.

According to the relational turbulence model, returning service members and at-home partners who encounter interference in their daily routines are likely to view their relationship as tumultuous. Findings compatible with this logic revealed actor effects of interference from a partner in all tests (H3) and partner effects for women in the model containing the global measures (RQ4). These results add to a growing body of work spotlighting the upheaval military couples face when trying to rebuild, reshuffle, and reorder their daily routines upon homecoming (Bowling & Sherman, 2008; Faber et al., 2008). Indeed, some military families report that adapting to living together again under the same roof is more stressful than deployment itself (Doyle & Peterson, 2005; Huebner et al., 2007; Mmari, Roche, Sudhinaraset, & Blum, 2009). Because individuals tend to focus their attention on the ways their partner disrupts their goals while overlooking the ways their partner facilitates their goals (Berscheid, 1983), and because reunion is almost inevitably romanticized (e.g., Pincus et al., 2001), returning service members and at-home partners may face adversity that is both real and magnified upon homecoming. Our results hint that interference from a partner may play a key role in this process.

Whereas the logic of the relational turbulence model is applicable to any number of transitions (Solomon et al., 2010), we sought to be mindful of the unique features of the transition from deployment to reintegration in particular. To that end, we employed self-report scales assessing the issues of reunion uncertainty and reintegration interference from a partner likely to arise during the post-deployment transition. Across all waves, participants reported more relational uncertainty and interference from a partner via the reunion-specific measures, which suggests that our efforts to tailor our study to the domain under investigation may have helped to address – at least slightly – the restricted range of relational uncertainty and

interference from a partner apparent in previous work with both civilian couples (Theiss et al., 2013) and military couples (Knobloch & Theiss, 2011a).

Our findings also suggest best practices for reuniting military couples and the clinicians who assist them. Perhaps most obviously, our descriptive results imply that individuals may find relationship education offered directly upon stateside arrival to be less applicable compared to services provided after military couples shift from the honeymoon phase into a more turbulent period (RQ1). Second, our substantive findings imply that interventions should address both mental health issues and relationship issues rather than one or the other in isolation (H1, H2, H3). Finally, our data, when coupled with work showcasing the close connections between depression and suicide (e.g., Smith et al., 2013), between relational uncertainty and physiological stress (Priem & Solomon, 2011), and between interference from a partner and strong negative emotion (Berscheid, 1983), underscore the critical importance of helping military couples manage fluctuations in depressive symptoms, relational uncertainty, and interference from a partner during the post-deployment transition.

Strengths, Limitations, and Directions for Future Research

A strength of our study is that we collected data from a relatively large sample of geographically dispersed military couples affiliated with both active duty and National Guard units. Soliciting reports from both returning service members and at-home partners, which is relatively rare in the military family literature (MacDermid Wadsworth, 2010), afforded the ability to examine couple-level dynamics via both actor effects and partner effects. Moreover, our longitudinal design permitted relatively rigorous tests of our hypotheses: We were able to account for autocorrelation by evaluating predictors of people's appraisals of turmoil above and beyond their appraisals of turmoil in the previous month. Third, we took a two-pronged approach

to testing the relational turbulence model by pairing global and reunion-specific measures of relational uncertainty and interference from a partner.

Our study also contains important limitations. With respect to our sample, most participants appeared to be managing the transition from deployment to reunion with relative ease since they reported notably low levels of distress. Moreover, our participants were quite homogenous with respect to race and military branch, with underrepresentation from individuals of racial minority backgrounds and military couples affiliated with the Air Force, Navy, and Marines. Future work that employs random sampling techniques, rather than the convenience sampling methods we utilized, would offer the capacity to determine the severity of the challenges military couples experience and to document any subgroup differences among diverse racial and military cohorts.

Other limitations stem from the three-month scope of our investigation. We tracked returning service members and at-home partners for only half as long as the six-month window traditionally ascribed to the post-deployment transition (Pincus et al., 2001), so our data do not speak to people's experiences during the latter portion of the adjustment period. Second, our study is restricted in its ability to shed light on alternative pathways among the variables. We drew on the logic of the relational turbulence model to identify depressive symptoms, relational uncertainty, and interference from a partner as predictors of people's appraisals of turmoil (Solomon & Theiss, 2011), but reverse and/or reciprocal trajectories are plausible (Knobloch & Theiss, 2010). Third, our descriptive findings hint at nonlinear patterns as the transition from deployment to reintegration unfolds over time (RQ1), but we limited the tests of our hypotheses to linear patterns (H1, H2, H3) given only three points of observation. We encourage scholars to collect more waves of data over a longer period of time to facilitate the growth curve analyses

that are the gold standard for mapping trajectories of interpersonal dynamics (e.g., Lawrence, Nylen, & Cobb, 2007).

A more expansive direction for future research is to build on these findings to understand how military couples experience the full cycle of deployment. Our results imply that the relational turbulence model shows promise for illuminating the post-deployment transition via depressive symptoms (H1), relational uncertainty (H2), and interference from a partner (H3). Moving forward, we see value in a large-scale project that follows military personnel and their romantic partners from preparation for departure, across deployment, and through reintegration after homecoming. Such a study could examine a broader set of predictors (e.g., other mental health symptoms such as anxiety and post-traumatic stress) and outcomes (e.g., other markers of upheaval such as difficulty coping, expressing affection, and managing conflict) to track people's experiences across the trajectory of deployment. We contribute our findings as one step toward a comprehensive view of how military couples navigate the challenges of the deployment cycle.

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Footnotes

[1] Quantitative data from the same sample are reported by Name Withheld (2013) and Name Withheld (2013). Qualitative data are reported by Name Withheld (in press).

[2] The final eligibility criterion was part of the larger project.

[3] Given the strong positive associations among some of the variables (see Table 2), we conducted subsidiary measurement analyses on all pairs of multi-item scales to rule out redundancy of measurement. CFA findings from the Wave 1 data failed to identify any unidimensional first-order factors from items comprising the paired combinations of depressive symptoms, relational uncertainty, reunion uncertainty, interference from a partner, reintegration interference from a partner, and appraisals of turmoil.

[4] We compared individuals experiencing their first deployment (32%) to those who had completed multiple deployments (68%) by conducting independent samples *t*-tests on the Wave 1 data separately for returning service members and at-home partners (excluding the dual-deployed couple), but no differences were apparent. Similarly, when we added the number of deployments individuals had experienced into the multilevel models, it did not emerge as a statistically significant predictor of an actor's appraisals of turmoil in any of the analyses.

Table 1

Descriptive Statistics by Wave

	Wave 1			Wave 2			Wave 3		
	M	*SD*	α	*M*	*SD*	α	*M*	*SD*	α
Depressive Symptoms	2.02	0.93	.81	1.98	0.88	.82	2.06	1.04	.87
Self Uncertainty	1.49	0.84	.92	1.65	0.88	.91	1.69	1.04	.95
Partner Uncertainty	1.73	1.02	.93	1.94	1.22	.97	1.97	1.32	.98
Relationship Uncertainty	1.61	0.97	.94	1.83	1.08	.93	1.82	1.15	.94
Reunion Uncertainty	2.18	1.06	.93	2.32	1.11	.92	2.15	1.09	.94
Interference from a Partner	1.66	0.79	.88	1.92	0.96	.91	1.87	0.96	.93
Reintegration Interference	2.21	0.76	.71	2.44	0.95	.81	2.31	0.84	.78
Appraisals of Turmoil	1.77	1.11	.93	1.92	1.25	.94	1.92	1.26	.95

Note. $N = 236$ individuals for Wave 1, $n = 225$ individuals for Wave 2, and $n = 223$ individuals for Wave 3.

Table 2

Wave 1 Correlations

	V1	V2	V3	V4	V5	V6	V7	V8
V1: Depressive Symptoms	<u>.23</u> *	.20 *	.25 **	.26 **	.40 ***	.21 *	.22 *	.32 ***
V2: Self Uncertainty	.32 ***	<u>.40</u> ***	.52 ***	.83 ***	.62 ***	.60 ***	.38 ***	.52 ***
V3: Partner Uncertainty	.14	.67 ***	<u>.32</u> **	.71 ***	.56 ***	.45 ***	.30 **	.49 ***
V4: Relationship Uncertainty	.34 ***	.92 ***	.68 ***	<u>.54</u> ***	.72 ***	.50 ***	.36 ***	.59 ***
V5: Reunion Uncertainty	.31 **	.70 ***	.60 ***	.75 ***	<u>.44</u> ***	.49 ***	.49 ***	.63 ***
V6: Interference from a Partner	.22 *	.36 ***	.44 ***	.37 ***	.52 ***	<u>.35</u> ***	.72 ***	.57 ***
V7: Reintegration Interference	.15	.27 **	.45 ***	.29 **	.51 ***	.75 ***	<u>.40</u> ***	.53 ***
V8: Appraisals of Turmoil	.33 ***	.51 ***	.62 ***	.58 ***	.58 ***	.46 ***	.45 ***	<u>.33</u> ***

Note. $N = 118$ men, women, or dyads. Wave 1 bivariate correlations for men appear above the diagonal, Wave 1 bivariate correlations for women appear below the diagonal, and Wave 1 within-couple correlations appear on the diagonal and are underlined.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3

Main Effects for the Multilevel Models Involving Depressive Symptoms, Relational Uncertainty,

and Interference from a Partner Predicting Appraisals of Turmoil

	β	(SE)	t
Intercept	1.91	(.05)	40.42 ***
Slopes for Covariates			
Biological Sex	- .01	(.04)	- 0.18
t - 1 Appraisals of Turmoil	.31	(.03)	9.10 ***
Days Since Reunion	- .00	(.00)	- 1.28
Slopes for Actor Effects			
Depressive Symptoms	.11	(.04)	2.80 **
Self Uncertainty	.25	(.07)	3.45 ***
Partner Uncertainty	- .01	(.05)	- 0.15
Relationship Uncertainty	.21	(.07)	2.92 **
Interference from a Partner	.35	(.05)	7.31 ***
Slopes for Partner Effects			
Depressive Symptoms	.15	(.04)	3.70 ***
Self Uncertainty	.05	(.07)	0.68
Partner Uncertainty	- .06	(.06)	- 1.10
Relationship Uncertainty	- .04	(.08)	- 0.49
Interference from a Partner	.11	(.05)	2.13 *

Note. N = 236 individuals.

* *p* < .05. ** *p* < .01. *** *p* < .001.

Table 4

Main Effects for the Multilevel Models Involving Depressive Symptoms, Reunion Uncertainty,

and Reintegration Interference from a Partner Predicting Appraisals of Turmoil

|	β	(SE)	t
Intercept	1.92	(.05)	40.38 ***
Slopes for Covariates			
Biological Sex	- .04	(.04)	- 0.97
t - 1 Appraisals of Turmoil	.27	(.04)	7.69 ***
Days Since Reunion	- .00	(.00)	- 0.43
Slopes for Actor Effects			
Depressive Symptoms	.15	(.04)	3.97 ***
Reunion Uncertainty	.38	(.04)	8.95 ***
Reintegration Interference from a Partner	.35	(.05)	6.85 ***
Slopes for Partner Effects			
Depressive Symptoms	.12	(.04)	2.97 **
Reunion Uncertainty	.07	(.04)	1.79
Reintegration Interference from a Partner	.04	(.05)	0.81

Note. $N = 236$ individuals.

* $p < .05$. ** $p < .01$. *** $p < .001$.
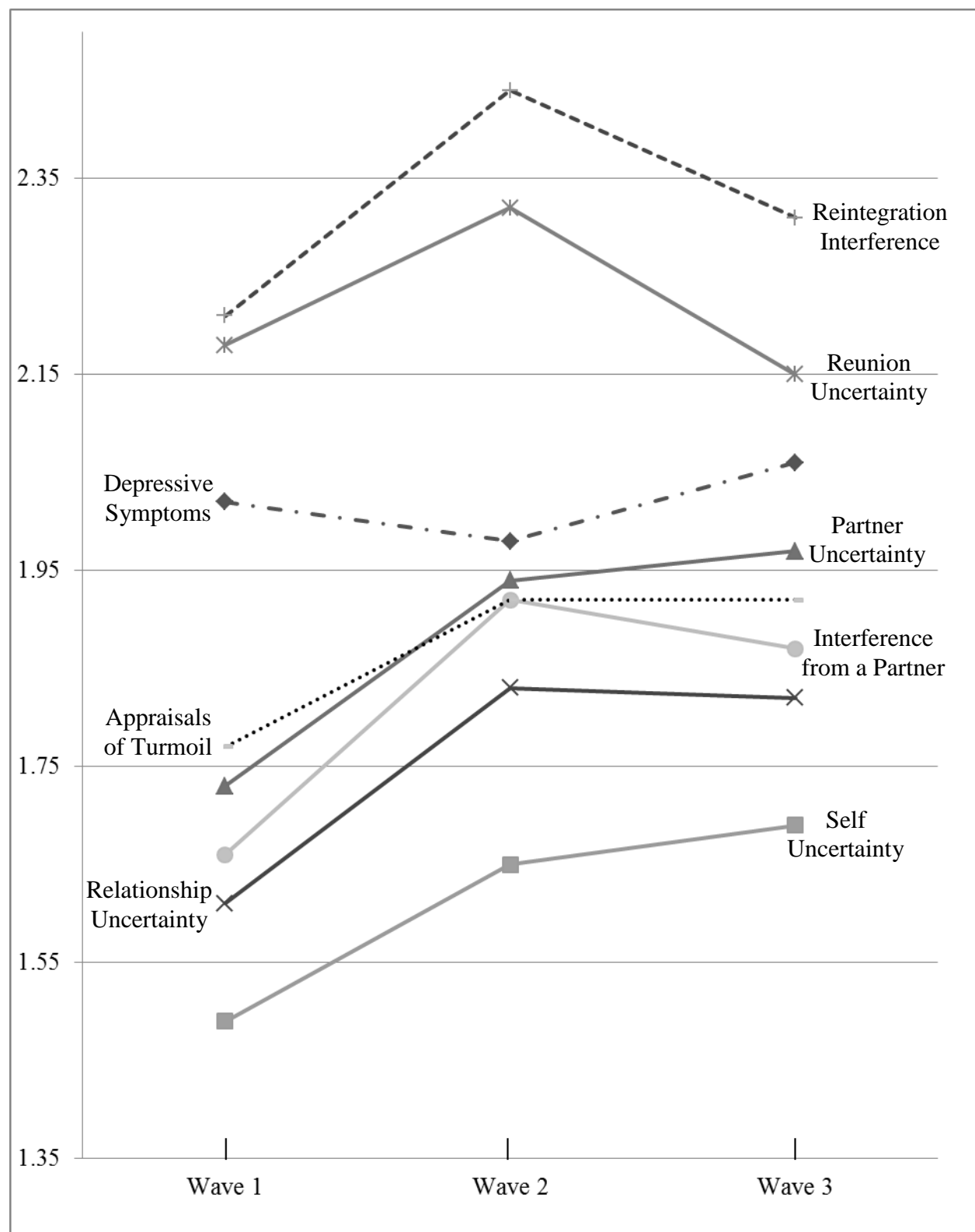
Figure 1. Variables plotted across waves.